

REGRADED UNCLASSIFIED

APPENDIX 7

ARMY STUDY

5660

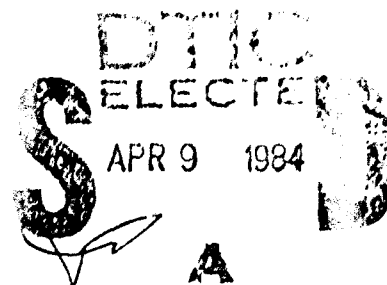
V. 8

OK

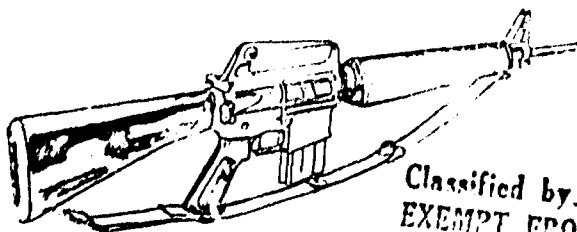
and better

AD A953117

# REPORT OF THE M16 RIFLE REVIEW PANEL



The Army Library (ANRLR)  
ATTN: Army Studies Section  
Room 1A534, Pentagon  
Washington, D. C. 20310



Classified by \_\_\_\_\_  
EXEMPT FROM GENERAL DECLASSIFICATION  
SCHEDULE OF EXECUTIVE ORDER 11652  
EXEMPTION CATEGORY \_\_\_\_\_  
DECLASSIFY ON \_\_\_\_\_

DTIC FILE COPY

This document has been approved  
for public release and sale; its  
distribution is unlimited.

1 JUNE 1968

M16 SURVEYS IN THE REPUBLIC OF VIETNAM

84 03 13 284

REGRADED UNCLASSIFIED



DEPARTMENT OF THE ARMY  
OFFICE OF THE DEPUTY CHIEF OF STAFF  
FOR RESEARCH, DEVELOPMENT, AND ACQUISITION  
WASHINGTON, DC 20310

REPLY TO  
ATTENTION OF

DAMA-WSW


1 FEB 1969

MEMORANDUM FOR THE RECORD

SUBJECT: Declassification Action - Report of the M16 Rifle Review Panel (C)  
dated 1 June 1968. [REDACTED]

1. The Report on the M16 Rifle Review Panel dated 1 June 1968 was prepared for the Office of the Chief of Staff of the Army, by the Office of the Director of Weapons System Analysis. The Ground Combat Systems Division, Office of the Director of Weapons Systems, Office of the Deputy Chief of Staff for Research, Development and Acquisition, is the successor to the originator of the report.
2. This office has completed a review of subject report and appendices 1 through 11 and has determined classification of Confidential is no longer needed. The report is now Unclassified. Selected extracts of the report are at Enclosure 1.
3. Notification of this declassification will be forwarded to all distribution addressees and a declassified copy will be forwarded to the Defense Technical Information Center, Cameron Station, for file.

1 Encl  
as

  
WILLIAM G. COOMER  
Colonel, GS  
Chief, Ground Combat Systems  
Division



[REDACTED]

Appendix 7

M16 SURVEYS IN THE REPUBLIC OF VIETNAM

1 June 1968

[REDACTED]

REGRADED UNCLASSIFIED

[REDACTED]

Appendix 7

M16 Surveys in the Republic of Vietnam

Table of Contents

	<u>Page</u>
A. Introduction	7-1
B. U.S. Army Weapons Command Surveys	7-2
C. Congressional Survey	7-8
D. Office of the Assistant Secretary of Defense Survey	7-11
E. Office of the Chief of Staff Survey	7-17
F. Analysis and Conclusions	7-24
G. Bibliography	7-30
Inclosures	
7-1 M16 Rifle Survey in the Republic of Vietnam	7-32





# CONFIDENTIAL

## Appendix 7

### M16 SURVEYS IN THE REPUBLIC OF VIETNAM

#### A. Introduction

An urgent need for increased firepower in Vietnam was recognized by the Commander, U.S. Military Assistance Command, Vietnam, when he asked for 170,000 M16 rifles in December 1965.<sup>1/</sup> The request was immediately approved and large numbers of M16's were introduced rapidly into Vietnam in early 1966.

No serious problems with the M16 were reported for several months, but in the fall of 1966 excessive stoppages and malfunctions began to be reported by units in U.S. Army, Vietnam (USARV). A preliminary investigation made by the Customer Assistance Office of the U.S. Army Materiel Command (USAMC), and technicians from the 1st Logistical Command and USARV determined that a lack of proper training and maintenance was the probable cause of the trouble.<sup>2/</sup> USARV then took steps to improve the quality of M16 maintenance. Among these, USARV requested in early October 1966 that U.S. Army Weapons Command (USAWECOM) furnish technical training teams.

As reliability problems with the M16 continued to be reported, military concern increased and both public and Congressional interest was aroused. This concern and interest brought about a series of field surveys by various agencies and commands.

---

<sup>1</sup> Hq MACV Msg 42787, 060148Z Dec 65.

<sup>2</sup> Hq MACV Msg MACJ42-MS 46816, 230911Z Oct 66.

# CONFIDENTIAL

**CONFIDENTIAL**

B. U.S. Army Weapons Command Surveys

On 11 October 1966 USARV requested technical assistance in support of the M16 from U.S. Army Weapons Command,<sup>3/</sup> and three surveys were made: one from October 1965 to December 1966, another in January - February 1967, and the third in April - May 1967.

October - December 1966

The first USAWECOM survey team stayed in Vietnam from 21 October 1965 until 2 December 1966.<sup>4/</sup> While the primary purpose of the team<sup>5/</sup> was to provide maintenance instruction to a nucleus of officers and men from each brigade, who would then teach their own units, direct support organizations were also instructed.

The team taught maintenance in every major USARV unit except the 1st Air Cavalry Division.<sup>6/</sup> Students brought their own weapons, magazines, ammunition, cleaning materials, and accessories to class. A detailed inspection of each student's equipment revealed that with the exception of the weapons of the 1st Brigade, 101st Airborne Division, the 173d Airborne Brigade, and the 5th Special Forces, all

3

Hq USARV Msg AVHGD-MD 29518, 110206Z, Oct 66.

4 Ltr, PM-RS, USAMC, 15 Dec 66, Subj: Liaison Visit to SEA in Reference to the XM16E1 Rifle. All information about this USAWECOM survey is from this 15 Dec 66 report unless otherwise indicated.

5 The team, headed by Lieutenant Colonel Herbert P. Underwood of the Office of Project Manager, Rifles, had seven other members, four from USAWECOM and three from Colt's Firearms Division of Colt Industries.

6 The 1st Air Cavalry Division had stated that it was having no trouble with the rifle, and asked that instruction be given only to the small arms shop of its maintenance battalion.

**CONFIDENTIAL**

**CONFIDENTIAL**

the weapons were poorly maintained. The most common faults observed were:

Excessive oil on the weapon;

Carbon buildup in the chamber, bolt, and bolt carrier group;

Overloading of magazines with 21 rounds of ammunition;

Oil and grit inside magazines (frequently accompanied by lubricated ammunition); and

Failure to replace worn or broken extractors and extractor springs.

Other deficiencies noted frequently were shortages of technical manuals, cleaning equipment, and repair parts, and a general lack of knowledge of the M16 rifle among officers and noncommissioned officers.

The 1st Brigade, 101st Airborne Division, the 173d Airborne Brigade, and the 5th Special Forces were the only units surveyed that had received training with the M16 for a significant period of time prior to deployment to Vietnam. Men in other units had been given training in marksmanship but little or no instruction in care and cleaning of the rifle.

The survey team verified the existence of a malfunction problem and supported the findings of the preliminary investigation by concluding that the malfunctions were primarily due to inadequate cleaning, improper lubrication, and the continued use of worn parts. The team believed, further, that poor rifle maintenance was itself

**CONFIDENTIAL**

# CONFIDENTIAL

the result of insufficient maintenance training; a shortage of technical manuals, repair parts, and cleaning equipment; and a lack of knowledgeable officers and noncommissioned officers. As a result of the technical team's visit the following actions were taken within USARV:

Instruction material on the care and cleaning of the M16 was published and distributed at company or rifleman level.<sup>7/</sup>

Emphasis was placed on the need for adequate command supervision of maintenance programs.<sup>8/</sup>

New troops were required to receive a minimum of two hours M16 maintenance training during their first week in Vietnam.

Immediate USARV inspection and repair of all M16's on hand by divisional direct support maintenance teams and elements of the 1st Logistical Command was directed.

Follow-up inspections by teams from the 1st Logistical Command were directed to check on the effectiveness of maintenance training within USARV.

---

<sup>7</sup> USAWECOM Ltr, 25 Oct 66. User Care of the M16; USARV Combat Lessons Learned, 28 Oct 66, M16 Care and Cleaning; USARV Training Circular 5, 20 Nov 66; USARV Pamphlet 750-5, 14 Dec 66; and extracts from several PS Magazines.

<sup>8</sup> COMUSMACV Msg, MACJ42-MS 46816, 230911Z Oct 66; USARV Msg AVHGD-MD 30677, 181215Z Oct 66.

# CONFIDENTIAL

# CONFIDENTIAL

## January - February 1967

A follow-up of the first survey and instruction visit was made by USAWECOM from 17 Januray through 20 February 1967.<sup>9/</sup>

No trip report, after action report, or other memoranda exist, and therefore no comment on this survey can be made.

## April - May 1967

On 17 April 1967, Headquarters, USARV, requested technical assistance with the XM148 grenade launcher.<sup>10/</sup> A technical team was sent in response to this request.<sup>11/</sup> The primary purpose of the survey was to evaluate and correct problems with the XM148 grenade launcher, but the team also examined large numbers of M16 rifles in the hands of troops to determine the status of maintenance, the availability of cleaning materials, and the condition of rifle barrels and chambers.<sup>12/</sup> The team was in Vietnam

---

<sup>9</sup> The team had five members: its team chief, Major Emanuel Podurgal, who was from the Office of the Project Manager, Rifles, two representatives from USAWECOM, one from U.S. Continental Army Command (USCONARC), and one from Colt's Firearms Division.

<sup>10</sup> Ltr, PM-RS, USAMC, 25 May 67, p.1.

<sup>11</sup> This team consisted of its chief, Major Podurgal, from the Office of the Project Manager, Rifles, Mr. Wesley B. Eastis from USAWECOM, and Mr. Kanamitsu Ito, Colt's Firearms Division

<sup>12</sup> Ltr, PM-RS, USAMC, 25 May 67, Subj: After Action Report - AMCPM-RS Team Visit to Vietnam, All information regarding this survey is from this report.

# CONFIDENTIAL

# CONFIDENTIAL

from 27 April through 18 May 1967, and during this time visited the two Marine divisions and every Army division and separate brigade (with the exception of Task Force Orgeon),<sup>13/</sup> observing rifles, checking maintenance shops, and conducting interviews.

M16 rifles were inspected by the survey team in troop units and maintenance repair shops throughout Vietnam. The findings of this survey were:

No major difficulties were being experienced with the M16. There was still a problem with the extractor, but the frequency of malfunction had been reduced through improved care and cleaning.

Men expressed satisfaction with the M16 and agreed that it was superior to the M14 in the Vietnam environment.

About 50 percent of the M16's inspected in maintenance shops showed signs of chamber deterioration due to pitting.<sup>14/</sup>

Accumulation of thick deposits of copper fouling in rifle bores was often observed. This condition was worse in units which habitually fired a large volume of tracer ammunition.

---

<sup>13</sup> Why Task Force Oregon was not visited is unknown.

<sup>14</sup> These weapons, which had been turned in for repair, however, may not be generally representative of those in the hands of troops.

# CONFIDENTIAL

**CONFIDENTIAL**

The survey team concluded that the major problem was deterioration of rifle barrels caused by chamber pitting and the accumulation of copper fouling. It estimated that approximately 10 percent of the M16's in Vietnam would require a barrel replacement every three months. To reduce the rate of barrel deterioration, the team recommended speeding up deliveries of the recently adopted improved lubricant (MIL-L-46000A) LSA and chrome plating the rifle chambers.

**CONFIDENTIAL**

# CONFIDENTIAL

## C. Congressional Survey

On 2 May 1967, the House Committee on Armed Services appointed a special subcommittee to inquire into the M16 rifle program, naming Congressman Richard H. Ichord chairman and Congressmen Speedy O. Long and William G. Bray members. During their investigation the members of the subcommittee, accompanied by three special assistants and one military escort, visited Vietnam from 3 to 10 June 1967. After briefings at both Headquarters, MACV, and Headquarters, USARV, they visited the two Marine divisions and elements of five Army divisions. While in the field, they interviewed commanders, logistic support and training personnel, and soldiers and marines who had used the M16 in combat. Although some documents pertinent to the rifle program were collected, most of the information obtained by this survey came from personal interviews with men in combat units who were armed with the M16. Each of the three congressmen and three special assistants participated, and while no accurate count of the actual number of men interviewed is available, one of the special assistants, Colonel Edward B. Crossman (Ret.), estimated that he personally talked to more than 300 men.

No official report on this survey was published; the findings which follow are based upon observations by Colonel Crossman and the team escort, Colonel Paul B. Henley.<sup>15/</sup>

<sup>15</sup> Ltr, Col Crossman (Ret) to Mr Ichord, 16 Jun 67, Subj: Report of Investigations of the M16A1 Rifle in Combat.  
Memo, USARV for CINCUSARPAC and DA, 15 Jun 67, Report of Congressional Visit (RCS SAOSA-9)

# CONFIDENTIAL



# CONFIDENTIAL

At least 50 percent of the men interviewed had encountered serious malfunctions with the M16, most of them failures to extract.

The bolt closure device was used frequently enough to justify the Army's insistence upon this product improvement.

Extractors and extractor springs required replacement fairly often.

While there was no general shortage of cleaning and preserving equipment, many individuals were short of the critical cleaning rod and chamber brush.

Approximately 50 percent of the men preferred the M14. Most of the men who wanted the M14 felt that it was a more reliable rifle and were concerned about the M16's possible malfunctions in combat.

The M16's light weight, full-automatic fire capability, handiness, ease of firing, and light ammunition weight were all factors mentioned in its favor.

A large percentage of the men appeared to be shooting their rifles in combat, in marked contrast to experience in Korea.

Many cases of a stuck or jammed selector lever were reported.

It was not possible to correlate kind of lubricant or method of lubrication with malfunctions, nor was such correlation possible

# CONFIDENTIAL

**CONFIDENTIAL**

with ammunition of a particular type or make.

Colonel Crossman recommended in his letter to Mr Ichord that an immediate investigation be conducted of ammunition design and manufacture, rifle design and manufacture, and maintenance in the field to determine the cause and cure for failures to extract. He also recommended modification of the selector lever and related parts to eliminate any tendency to stick.

**CONFIDENTIAL**

# CONFIDENTIAL

## D. Office of the Assistant Secretary of Defense Survey

The Directorate for Inspection Services (DINS), Office of the Assistant Secretary of Defense (Administration), conducted a field survey in Vietnam from 22 August to 6 September 1967 to examine the performance of the M16 rifle.<sup>16/</sup> Findings were to be compared with a technical evaluation of the M16 already completed by the Director of Defense Research and Engineering, who would then submit to the Deputy Secretary of Defense a final report stating whether any major deficiencies existed in the weapons and recommending corrective action accordingly.

Emphasis was placed on identifying corrective actions taken or required to improve the basic weapon and its accessories, the maintenance and logistic support thereof, and individual M16 rifle training (CONUS and SVN). The effectiveness of supervision of the chain of command was examined with respect to implementing corrective actions down to the individual rifleman. The performance and acceptability of the M16 was examined under a variety of combat conditions, terrain and weather. Special interest examinations were made with respect to additional field testing of the weapon in SVN, reporting procedures for performance data, and the effects of varying operating tactics (modes of fire) on reliability. Finally, suggestions for additional improvements to the rifle and accessories were solicited.<sup>17/</sup>

The survey team questionnaire was completed by 1,585 men armed with the M16. The following is a summary of responses to the questionnaire:<sup>18/</sup>

---

<sup>16</sup> This team of six officers was headed by Major General Robert W. Strong, USAF.

<sup>17</sup> Directorate for Inspection Services, OASD (Administration), 30 Sep 67, M16 Rifle Survey in South Vietnam, p.1.

<sup>18</sup> Directorate for Inspection Services, OASD (Administration), undated, M16 Rifle Survey in South Vietnam, pp 17-18. (DINS, OASD (Administration) published two reports, the first undated and the subsequent one dated 30 Sep 67).

# CONFIDENTIAL

	<u>Yes</u>	<u>No</u>	<u>UNKNOWN N/A</u>
1. Have you used the M16 rifle in combat operations?	83%	17%	
2. Has the M16 rifle performed well for you in Vietnam?	85%	13%	2%
3. Do you like the M16 as an individual weapon?	87%	12%	1%
4. Do you clean your M16 daily?	71%	28%	1%
5. Did you receive training on firing the M16 rifle after arrival in Vietnam?	82%	17%	1%
6. Did you zero your individual weapon in Vietnam?	77%	20%	3%
7. Have you had stoppage(s) with your rifle during firing? <sup>19/</sup>			
8. Were you able to clear the stoppage and continue to fire?	72%	8%	20%
9. Do you carry a cleaning kit for your M16 rifle?	69%	29%	2%
10. Are you able to get cleaning material for your rifle in your unit?	82%	16%	2%
11. Have you received special training in the maintenance of the M16 rifle under field conditions?	65%	32%	3%
12. Does your unit have a daily weapons inspection by the chain of command?	44%	53%	3%

<sup>19/</sup> None, 17 percent; few, 70 percent; many (more than ten), 10 percent; and no answer, 3 percent.

# CONFIDENTIAL

# CONFIDENTIAL

	<u>Yes</u>	<u>No</u>	<u>UNKNOWN N/A</u>
13. Have you received the new lubricant for the M16 rifle?	54%	44%	2%
14. Has the new lubricant improved the performance of your M16? (If you have used it)	66%		34%
15. Have you been told to keep your ammunition clean?	96%	4%	
16. Do you clean your ammunition and magazines daily?	29%	69%	2%
17. Would it help to have all magazines preloaded in disposable sealed magazines?	86%	11%	3%
18. Do you usually load 20 rounds in your magazines?	16%	83%	1%
19. If you usually load less than 20 rounds, how many do you load? <u>20/</u>			
20. Have you used the BOLT ASSIST to reduce stoppage?	44%	42%	14%
21. In combat have you usually fired the M16 fully automatic?	38%	51%	11%

The following OSD field survey findings were based upon a synthesis of the data collected from the questionnaire and from more than 600 personal interviews with commanders, maintenance personnel, and riflemen: 21/

20/ 20 rounds, 16 percent; 19 rounds, 10 percent; 18 rounds, 67 percent; 17 rounds, 6 percent; and 15 rounds, 1 percent.

21 Directorate for Inspection Services, OASD (Administration), 30 Sep 67, M16 Rifle Field Survey Vietnam, pp. 13-15.

# CONFIDENTIAL

## Training

1. In general, adequate training policy, guidance, and directives have been published by the separate services and their subordinate commands in CONUS to remedy the reported deficiencies contributing to M16 malfunctions in South Vietnam.

2. Training in CONUS could be improved by additional emphasis on familiarization firing, use of improved cleaning techniques, rifle disassembly and assembly, and application of procedures to reduce stoppages (immediate action).

3. The functions of rifle inspection and maintenance thereof in the field would be improved by increased CONUS training of company grade officers and noncommissioned officers in the nomenclature, functioning, care, and cleaning of the M16.

4. Adequate policy, guidance, and directives have been published by MACV and major subordinate headquarters prescribing specific training in the familiarization, care, cleaning, maintenance, and zero firing of the M16 rifle. These directives are available at all echelons of command in South Vietnam as a basis for effective training programs for individual combat riflemen.

5. The interview of individual riflemen in South Vietnam disclosed that compliance with MACV training directives had not been achieved to the desired degree. This was caused by some failure to communicate to the operating units, down to the individual rifleman, the training directives issued by MACV and major subordinate commands. There was also some failure in the chain of command to follow up the implementation of the directives in order to achieve compliance.

## Support

6. CONUS support of the M16 rifle was found to be adequate in every respect and improving. Adequate quantities of repair parts, cleaning materials, and equipment were available or in supply channels to meet all requirements.

# CONFIDENTIAL

## CONFIDENTIAL

7. MACV has directed appropriate action to insure the availability to operational units of adequate supplies, repair parts, and cleaning equipment. However, the individual rifleman has not consistently received these items on a routine basis even though available at direct support echelons.

8. The principal direct cause of the stoppages of the M16 rifle in South Vietnam has been the failure to extract the spent case. In turn this is caused by dirty or corroded cartridges, and improperly maintained chambers.

9. Adequate regularly conducted inspections of the M16 rifle were not being accomplished in many units. In the majority of units the inspection of magazines and ammunition on a regular basis was rarely accomplished.

10. Almost one hundred percent issue of the new LSA lubricant had just been completed to combat units at the time of the field survey. More than one half of those surveyed had used it in the field; and these reported improvement over previous lubricants. Noteworthy is the report of its rust and water repellant characteristics when used by units deployed in wet and muddy terrain.

11. Out of millions of rounds of 5.56mm ammunition expended, very few ammunition malfunctions were reported. Where rifles were given proper care, individual riflemen were unable to discern any difference in performance or carbon build-up between ammunition loaded with either ball or IMR propellant from different manufacturers.

12. The new buffer for the M16 had been issued to all maneuver elements. Action had been taken to accomplish retrofit and had been completed in the majority of these elements. Issue to all other units had been programmed and was in progress with scheduled completion during December 1967. In those units in which retrofit had been completed, riflemen surveyed reported that it had improved overall performance of their weapon.

13. No determination could be made of the effect or the impact on the performance of the M16 rifle by the

## CONFIDENTIAL

**CONFIDENTIAL**

substitution of the chrome chambered barrel due to the small number of rifles in Vietnam so modified. Soonest determination could be made of the effect of this modification if it is issued on a priority basis to all U.S. maneuver units in South Vietnam.

#### Current Problems

14. There are no major problems being experienced in the field with the M16 rifle at this time that have not been identified and for which corrective action had not been instituted. There are minor problems remaining which are within the purview of the product improvement program for the weapon.

#### Performance and Acceptability

15. The over-all performance of the M16 rifle in Vietnam has had the revolutionary impact of dramatic improvement of the combat capability of U.S. ground maneuver units in all types of operations. This is in spite of reliability problems caused by its accelerated issue and employment on a large scale, and the less than adequate preparation, training and discipline of U.S. forces for its support and maintenance.

16. The general performance of the M16 rifle had been satisfactory in Vietnam. Since June 1967, it has improved steadily as a result of increased training and discipline of the rifleman in the care, cleaning and maintenance of the weapon.

17. The great preponderance of riflemen, their commanders and support personnel accept the M16 as the proper infantry rifle for use throughout Vietnam and like it as an individual weapon. Only thirty-eight individuals out of the more than 2,100 surveyed stated they would exchange their M16 rifle for another weapon. Of this group, thirty-five wanted the shorter, lighter version of the M16--the CAR-15 (XM177).

**CONFIDENTIAL**



CONFIDENTIAL

E. Office of the Chief of Staff Survey

Early in November of 1967, the Chief of Staff directed a review of the entire M16 rifle program.<sup>22/</sup> On 8 November the M16 Rifle Review Panel was convened within the Office of the Assistant Vice Chief of Staff and instructed to prepare a comprehensive history and evaluation of the M16 program, recommending further action as required. This panel then conducted a field survey of men armed with the M16 in Vietnam during the period 24 January through 5 February 1968 to collect data on the reliability, status of training, status of maintenance, and general overall effectiveness of the M16-M16A1 rifle system.<sup>23/</sup> Specific objectives of the field survey were to:

1. Determine the extent of corrective action previously taken to improve the reliability of the M16 rifle system.
2. Identify current problems experienced with the M16 in the field.
3. Evaluate the general performance and acceptability of the system under combat conditions.

All major Army units and one Marine division were surveyed. The survey team used two means of collecting data: personal interviews and a questionnaire. The interviews were with men whose

---

<sup>22</sup> CSM 67-436, 8 Nov 67, Subj: The M16 Rifle Program.

<sup>23</sup> This team of six was headed by Mr John A. Locherd from the Weapon Systems Analysis Directorate of the Office of the Chief of Staff, Army.

CONFIDENTIAL

# CONFIDENTIAL

primary duties involved either rifle training or the logistical support of the rifle system, and with members of the chain of command within tactical units. The questionnaire was completed by 2,021 men armed with the M16.

The findings of the survey are summarized below. (For detailed discussion see Inclosure 7-1.)

## Training.

1. A total of 23 percent of all men questioned who came direct from the continental United States indicated that they had received no formal M16 training prior to their arrival in Vietnam. Of the men from all other theaters, 73 percent stated they had not received such training before arrival.

2. Although 24 percent of the men indicated they had not received any M16 rifle training before arrival in Vietnam, there is good reason to believe that this problem will be reduced significantly in the near future. Analysis of survey data reveals a pronounced trend toward reduction of the numbers of men slipping through without M16 training. Only 4 percent of the men deploying during October 1967 - January 1968, indicated they were untrained.

3. Adequate training policies, guidance, and directives have been published by Headquarters, MACV, and Headquarters, USARV. These directives were not consistently available among units conducting replacement training at the time of the survey.

4. M16 training observed at divisional replacement centers did not always comply with MACV or USARV training directives.

# CONFIDENTIAL

**CONFIDENTIAL**

5. USARV M16 training policies and procedures did not distinguish among replacements by theater source or by the amount of rifle training men had received before their arrival in Vietnam.

6. 28 percent of the men surveyed said they had not received formal M16 rifle training in Vietnam. The number of men who had received M16 training in Vietnam varied appreciably from one major unit to another.

7. Many unit armorers lacked formal training and adequate knowledge of M16 rifle maintenance. As a result of this failing, rifles that properly should have been repaired by the unit armorer (those with a broken extractor, for example) had to be turned in by the riflemen and repaired at a higher echelon. Other unit armorer duties, such as periodic lubrication of detent springs, were often neglected.

Maintenance and Supply

8. Adequate quantities of repair parts and cleaning materials and equipment were found to be generally available in Vietnam. However, unbalanced distribution among depots occasionally resulted in temporary shortages which did affect using units.

9. Cleaning materials such as the cleaning rod, lubricant, brushes, and patches, were generally available to the rifleman and he usually carried most items with him in the field. Pipe cleaners and bore cleaners, however, were often not available.

**CONFIDENTIAL**

## CONFIDENTIAL

10. Men tended to clean their rifles two to three times more frequently than they cleaned their magazines and ammunition. This tendency was discouraged by unit maintenance inspections, which stressed care of the rifle and failed to emphasize the importance of properly maintained magazines and ammunition.

11. Unit armorers frequently did not accompany units into the field, and as a consequence field repair of weapons was neglected.

12. The buffer retrofit program was not complete at the time of the survey, although units within USARV had reported 100 percent completion of this program during November 1967. 84 percent of those surveyed indicated they had new buffers.

### Reliability and Acceptability

13. Failures to extract still occurred with enough frequency to reduce confidence in the M16. Among the men surveyed, 35 percent had experienced at least one such failure within the previous four months. The average number of reported failures to extract was 4.8 per man reporting this type malfunction.

14. Attempts to establish a statistically significant correlation between failures to extract and such possible causes as poor cleaning habits, overlubrication, and the user's lack of mechanical training were unsuccessful. Inability to statistically isolate the causative factors from field survey data suggests that failures to extract are not caused exclusively by user abuse.

## CONFIDENTIAL

## CONFIDENTIAL

15. Among those surveyed, 42 percent indicated that they had experienced at least one failure to lock. Of those reporting this type failure, the average number of failures was 5.3.

16. Half of the men reported having used the bolt assist and 69 percent indicated that use of the bolt assist had cleared the malfunction.

17. When asked what weapon they would prefer to carry in combat, 85 percent of the men wanted either the M16 or its sub-machine gun version, the XM177.

18. In general, men armed with the M16 in Vietnam rated this rifle's performance high. Most frequently lauded were its light weight and its firepower. However, many men entertained some misgivings about the M16's reliability (33 percent made adverse comments on either the rifle's sensitivity or its reliability).

### Product Improvements

19. Although the chrome plated chamber has not been fielded long enough to permit adequate evaluation, many men who had recently received an M16 with a chrome chamber found the rifle significantly more reliable than earlier models they had used.

20. The desire for magazines of greater capacity than 20 rounds was frequently expressed.

21. On-weapon storage capacity for cleaning materials is required. At the time of the survey, there was no means satisfactory to the rifleman for carrying these materials.

## CONFIDENTIAL

CONFIDENTIAL

General Usage

22. 83 percent of all men surveyed indicated they did test fire. The manner and frequency of test firing varied appreciably among units. A greater percentage of leaders, from fire team to platoon level, test fired than men within the rifle squads.

23. Within the theater, 10 percent of the men armed with the M16 had never zeroed their rifles. About one-fourth of the men zeroed when their weapons were issued at the beginning of their tours and never thereafter, while about half zeroed quarterly. USARV quarterly training requirements included zeroing of rifles.

24. Ammunition loads carried by the men were generally excessive, although the loads varied greatly. Individual loads ranged from 7 to over 40 magazines. In terms of actual useage, the average individual ammunition load carried was from 39 to 41 normal consumption days of ammunition.

25. Most men loaded 18 rounds in their magazines; the theater average was 18.3 rounds.

26. The theater consumption ratio of ball to tracer ammunition for men armed with the M16 was 4:1. This ratio varied appreciably among units (unit averages were a product of even wider differences among individuals, with many men firing 100 percent tracer).

CONFIDENTIAL

**CONFIDENTIAL**

27. Men estimated that they used the automatic mode of fire about 34 percent of the time and that about 60 percent of their automatic fire was expended in short bursts.

7-23

**CONFIDENTIAL**

**CONFIDENTIAL**

F. Analysis and Conclusions

In response to General William C. Westmoreland's request of December 1965, the M16 was fielded in Vietnam as rapidly as the rifles became available. The transition from the M14 to the M16 was accomplished so swiftly that most of the Army's combat forces were equipped with the M16 after they arrived in Vietnam, or so shortly before they left the United States that formal M16 training prior to departure was limited. This accelerated introduction of the M16 into Vietnam, along with shortages of cleaning materials and repair parts, and generally inadequate knowledge of the weapon on the part of the chain of command led to poor maintenance in the early stages of the rifle's use in Vietnam.

In the fall of 1966 excessive malfunctions<sup>24/</sup> were reported. The first surveys concluded that insufficient training of men in the care and maintenance of the M16 was the basic cause of the high malfunction rate, and a training program designed to increase care and cleaning proficiency was immediately begun. Subsequent surveys found M16 maintenance significantly improved and the malfunction problem reduced.

Despite improved care, malfunctions continued to occur with enough frequency to warrant concern. The Congressional survey in June 1967 found user acceptability relatively low. At that time

---

<sup>24</sup> Primarily failure to extract the spent cartridge.

**CONFIDENTIAL**



## CONFIDENTIAL

about one-half of the riflemen wished to exchange their M16's for M14's, chiefly because they had misgivings about the M16's reliability. This attitude toward the M16 was not entirely the product of a bad press, or rumors, since many men indicated that they had personally experienced one or more failures to extract while they were using the rifle in combat.

In the fall of 1967 the Office of the Secretary of Defense field survey found acceptability unusually high. <sup>25/</sup> "The M16 has achieved wide acceptance throughout Vietnam. Only 38 individuals of all those surveyed (2,100) would like to exchange their M16 for another weapon. Of this group 35 wanted the shorter, lighter version of the M16 -- the CAR15." (XM177) This acceptability figure is misleading since the OSD survey questionnaire did not ask the men which weapon they preferred. <sup>26/</sup> A better picture can be gained from responses to the OSD question: Do you like the M16? 12 percent of the men answered, "No."

Findings of the 1968 survey conducted by the Office of the Chief of Staff are basically consistent with the other surveys. These earlier surveys stressed the urgent need for improved care of the M16 by the rifleman. Emphasis upon maintenance has reduced the number of M16 malfunctions but has not eliminated the reliability

---

<sup>25</sup> Directorate of Inspection Services, OASD(A), 30 Sep 67, M16 Rifle Field Survey in South Vietnam, p.15.

<sup>26</sup> Men could write in comments on weapon preference but were not required to do so.

## CONFIDENTIAL

# CONFIDENTIAL

problem. It is clear that emphasis should be shifted to an examination of the entire rifle and ammunition system.

The following detailed conclusions are based upon the most recent Vietnam survey, the January-February 1968 visit of the M16 Rifle Review Panel.

Policies and directives throughout Vietnam which govern M16 training, supply, maintenance, and user care and cleaning were found generally adequate in January-February 1968. Continued command supervision is required to improve compliance with these directives.

With the exception of Vietnam-oriented advanced individual training for infantrymen, all M16 training given to men before their deployment to Vietnam should be improved. Many leaders have been hampered in meeting their supervisory responsibilities by insufficient knowledge of the M16. Frequently, riflemen receive either poor M16 training or none before they arrive in Vietnam. <sup>27/</sup> In order to improve predeployment rifle training the following measure should be taken:

1. Accelerate introduction of M16 rifles and M16 training for all men in basic combat training at the earliest possible date.
2. Increase the amount of M16 instruction for supervisors in all schools producing junior leaders, for example, NCO refresher courses, officer candidate schools, and basic branch courses.

---

<sup>27</sup> Recently improved clearance procedures within the continental United States have reduced the numbers of men who deploy without rifle training.

# CONFIDENTIAL

## CONFIDENTIAL

3. Establish procedures to insure receipt of M16 training for men on intertheater transfer to Vietnam.

USARV requires all replacements to complete the same M16 training program. Since many untrained replacements have arrived in Vietnam, it is appropriate that two training programs be operated: the present one for most men and another and more intensive one for the totally untrained.

Unit armorers often lacked formal training and adequate knowledge of M16 rifle maintenance. Provision should therefore be made for additional training for armorers, perhaps through divisional schools or mobile training teams from the 1st Logistical Command.

Men tend to clean their rifles two to three times more frequently than they clean their magazines, yet corroded or dirty ammunition and defective magazines seriously reduce rifle effectiveness. Unit maintenance inspections should emphasize care of the entire rifle system.

Adequate quantities of repair parts and cleaning materials and equipment were found to be generally available in Vietnam. However, unbalanced distribution among depots has occasionally resulted in temporary shortages which have affected rifle maintenance. The causes for this maldistribution should be identified and then procedures to achieve optimum distribution instituted.

CONFIDENTIAL

**CONFIDENTIAL**

Although individuals usually test fired their rifles, the nature and frequency of such firing varies widely among and within units. Test firing, when properly performed, will increase weapon reliability, and significant improvement in rifle effectiveness will be achieved by:

1. Isolation of defective rifles and magazines through periodic test firing by individuals in a combat zone. The Project Manager, Rifles, should develop a standard test firing procedure for this purpose.

2. Continued command emphasis upon the importance of frequent and properly conducted test firing.

Greater zeroing effort is required, particularly within maneuver battalions. The average frequency of zeroing was every 4.96 months and 10 percent of the men had never zeroed their rifles. Zeroing increases both hit probability and user confidence in the rifle. It also stimulates the appropriate use of aimed fire. Verification of zero should be integrated with test firing, since any object that can visibly register hits may serve as a target.

Current performance and acceptability data indicate:

1. The M16's high rate of lethal fire and light weight are qualities particularly suitable for the war in Vietnam.

2. Failures to extract still occur with enough frequency to reduce confidence in the M16, and these failures have several

**CONFIDENTIAL**

# CONFIDENTIAL

causes. Besides inadequate maintenance, such failures may result from pitted chambers, from defective parts, or from faulty control of ammunition case hardness. Consequently, both continued product improvement and user effort are necessary elements within any program to reduce the M16 reliability problem.

3. Introduction of the chromed chamber appears to have reduced the number of failures to extract, but this improvement has not been fielded long enough to permit adequate evaluation.

4. Most men armed with the M16 in Vietnam rated this rifle's performance high; however, many men entertained some misgivings about the M16's reliability. When asked which weapon they preferred to carry in combat, 85 percent of the men indicated that they wanted either the M16 or its submachine gun version, the XM177.<sup>28/</sup>

5. A field malfunction reporting system should be established throughout USARV. While such a system does not produce reliability data with laboratory precision, it does permit analysis of malfunction trends and would contribute to further improvement in the reliability of the M16.

---

<sup>28</sup> The M14 was preferred by 15 percent, while less than one percent wished to carry either the Stoner rifle, the AK-47, the carbine, or a pistol.

# CONFIDENTIAL

# CONFIDENTIAL

## G. Bibliography

Headquarters, MACV Message 42787, 060148Z December 1965.

Headquarters, USARV Message AVHGD-MD 29518, 110206Z October 1966.

Headquarters, USARV, Message AVHGD-MD 30677, 181215Z October 1966.

Headquarters, MACV Message MACJ42-MS 46816, 230911Z October 1966.

USAWECOM Letter, 25 October 1966, User Care of the M16.

USARV Combat Lessons Learned, 28 October 1966, M16 Care and Cleaning.

USARV Training Circular 5, 20 November 1966.

USARV Pamphlet 750-5, 14 December 1966, The XM16E1 Rifle.

Letter, Project Manager, Rifles, U.S. Army Materiel Command, 15 December 1966, Liaison Visit to SEA in Reference to the XM16E1 Rifle.

Letter, Project Manager, Rifles, U.S. Army Materiel Command, 25 May 1967, After Action Report - AMCPM-RS Team Visit to Vietnam.

Headquarters, USARV Memorandum for Commander in Chief, U.S. Army, Pacific, and Department of the Army, 15 June 1967, Report of Congressional Visit (RCS SAOSA-9), with Tabs A through L.

Letter, Colonel Edward B. Crossman (Ret.) to Mr. Richard H. Ichord, 16 June 1967, Report of Investigation of the M16A1 Rifle in Combat.

Report, Directorate for Inspection Services, Office of the Assistant Secretary of Defense (Administration), undated, M16 Rifle Field Survey in South Vietnam.

Report, Directorate for Inspection Services, Office of the Assistant Secretary of Defense (Administration), 30 September 1967, M16 Rifle Field Survey in South Vietnam.

# CONFIDENTIAL

**CONFIDENTIAL**

Secretary of Defense Memorandum for the Secretary of the  
Army, 18 October 1967, Evaluation and Survey of the M16 Rifle, with  
two attachments.

7-31

**CONFIDENTIAL**

**CONFIDENTIAL**

**M16 RIFLE SURVEY  
IN THE  
REPUBLIC OF VIETNAM**

**24 JANUARY - 5 FEBRUARY 1968**

**3 MAY 1968**

**PREPARED BY:  
OFFICE CHIEF OF STAFF  
OFFICE DIRECTOR OF WEAPON SYSTEMS ANALYSIS  
WASHINGTON, D. C. 20310**

**CONFIDENTIAL**

**Inclosure 7-1**



# CONFIDENTIAL

## M16 RIFLE SURVEY IN THE REPUBLIC OF VIETNAM

THE PURPOSE OF THIS DOCUMENT IS TO PROVIDE INFORMATION TO ADDRESSEES. REPRODUCTION OF THIS REPORT IN WHOLE IS PROHIBITED. RECIPIENTS ARE AUTHORIZED TO EXTRACT AND REPRODUCE, AS NECESSARY, THOSE PORTIONS OF THE REPORT WHICH ARE DIRECTLY RELATED TO THEIR RESPONSIBILITIES.

### DISTRIBUTION

SA	1	CG USCONARC	2
USofA	1	CG USAIS	1
GC	1	CG USACDC	2
Co fSA	1	CG USACDCCAG	1
OAVCofSA	10	CG USACDCEC	1
DCSPER	1	CO USACDC Infantry Agency	1
DCSOPS	1	CG USAMC	2
DCSLOG	1	CG USAWECOM	1
ACSFOR	1	PM Rifles	2
CRD	1	CG USAMUCOM	1
CLL	1	CG USATECOM	1
COMUSMACV	1	President USAIB	1
CG USARV	3		
CINCUSARPAC	1		41

CONFIDENTIAL

# CONFIDENTIAL

## M16 Rifle Survey in the Republic of Vietnam

### Table of Contents

Section	Page
I. Abstract	1
II. Purpose	2
III. Survey Procedures	3
IV. Questionnaire	6
V. General Location of Units Surveyed	10
VI. Survey Team Composition	11
VII. Itinerary Within Vietnam (24 January - 5 February 1968)	12
VIII. Analysis of Survey Data	13
IX. Conclusions	37
X. Frequency Distributions of Responses to Questionnaire	41
XI. Matrix Plots	88
Tables	
1. Cleaning Frequency and Unit Inspections by Unit	16
2. Lubrication of Ammunition, Test Firing and Buffer Retrofit by Unit	17
3. Ammunition Consumption and M16 Training in Vietnam by Unit	18
4. Zeroing History by Unit	19
5. Failure to Extract by Unit	20

CONFIDENTIAL

CONFIDENTIAL

	Page
6. M16 Training BEFORE Vietnam by Theater Source	24
7. Theater Source by MOS for those without M16 Training BEFORE Vietnam	24
8. Theater Source by Duty Position for those without M16 Training BEFORE Vietnam	25
9. Theater Source by Grade for those without M16 Training BEFORE Vietnam	25
10. Receipt of M16 Training BEFORE Vietnam by Deployment Month	26
11. Test Firing by Duty Position	33
12. Test Firing by Type Unit	33
13. Zeroing History by Duty Position	34
14. Zeroing History by Type Unit	34
15. Zeroing History for those having Twelve Months in Vietnam	35
16. Ammunition Load by Type Unit	36

CONFIDENTIAL

# CONFIDENTIAL

## I. Abstract

A field survey of men armed with the M16 rifle was conducted in Vietnam from 28 January through 5 February 1968 as a part of a review of the M16 program presently under preparation within the Office of the Chief of Staff. This report is an extract from that review.

The purpose of the survey was to evaluate measures already taken to improve M16 reliability, to identify current rifle problems, and to determine the general performance and acceptability of the system under combat conditions. All major Army units in USARV and one marine division were included in the survey sample. Two means were used to collect data: personal interviews and a questionnaire.

The survey indicated that the M16 rifle system was suitable for the war in Vietnam. Particularly desirable qualities were its high rate of lethal fire and light weight. However, failures to extract were still occurring with enough frequency to undermine confidence in the M16. Although men generally preferred to carry this weapon in combat, some misgivings were entertained about its reliability. Introduction of the chromed chamber appeared to reduce the number of failures to extract, but this improvement had not been fielded long enough to permit adequate evaluation. Many factors cause failures to extract, and continued product improvement and user effort are required to improve reliability.

# CONFIDENTIAL

# CONFIDENTIAL

## II. Purpose and Scope

Early in November of 1967, the Chief of Staff directed an intensive review of the entire M16 rifle program. On 8 November 1967 the M16 Rifle Review Panel was convened within the Office of the Assistant Vice Chief of Staff and instructed to prepare a comprehensive history and evaluation of the M16 program, recommending further action as required. This panel then conducted a field survey of men armed with the M16 in Vietnam during the period 24 January through 5 February 1968 to collect data on the reliability, status of training, status of maintenance, and general overall effectiveness of the M16-M16A1 rifle system. The information gathered has permitted comparative evaluation with results obtained in earlier field surveys, and whatever insight has been gained from the comparison, as well as the facts collected during the survey itself, have been added to the overall history and review of the M16 rifle program.

Specific objectives of the field survey were to

1. Determine the extent of corrective action previously taken to improve the reliability of the M16 rifle system.
2. Identify current problems experienced with the M16 in the field.
3. Evaluate the general performance and acceptability of the system under combat conditions.

CONFIDENTIAL

# CONFIDENTIAL

## III. Survey Procedures

The panel used two means of collecting data: personal interviews and a questionnaire.

The interviews were with men whose primary duties involved either rifle training or the logistical support of the rifle system, and with members of the chain of command within tactical units.

The questionnaire (Section IV) was designed to provide insight as to the reliability of the rifle system, the training of the men who used it, and the manner in which the system has been employed and supported. It was completed only by men armed with the M16. In an attempt to avoid bias or inhibition, no one was asked to place his name on the questionnaire and each individual was urged to base his responses only upon his own experience with the rifle. The questionnaire was administered by members of the survey team and by the 22d and 90th Replacement Battalions. The answers to many of the questions have permitted direct comparison with results of the field survey conducted by the Office of the Secretary of Defense from 24 August through 5 September 1967.

The survey data is based upon responses from 2,021 men. Since the primary user of the rifle in combat is found within the infantry battalion, these units are heavily represented in the sample. One half (51 percent) of all men surveyed were from

# CONFIDENTIAL

## CONFIDENTIAL

infantry battalions and 681 (38 percent) had an M1E military occupational specialty (light weapons infantryman).

To assure a fair representation of experience under the variety of environmental conditions found within Vietnam all major units were included in the survey. (For the location of units, see Section V.) The distribution of responses by major unit was:

<u>Major Unit</u>	<u>Number of Questionnaires</u>
1st Infantry Division	109
1st Air Cavalry Division	143
4th Infantry Division	51
9th Infantry Division	419
25th Infantry Division	80
Americal Division	285
101st Airborne Division	63
Separate Brigades (173d and 199th)	54
Other USARV Units	693
1st Marine Division	124
Total	2,021

Survey team members selected were those men on the Department of Army Staff who were most intimately involved with and knowledgeable of the M16 rifle system, its training program, logistical support, product improvements, and reliability problems. The team composition is listed in Section VI.

**CONFIDENTIAL**

The survey team intended to contact each major unit in Vietnam. The Communist TET offensive created a turbulent military situation and shortages of aircraft which reduced the number of units that could be directly contacted during the survey. A broadened survey sample was achieved by administering questionnaires at replacement battalions to individuals who were returning to the United States, having just completed their Vietnam tours.

Information of immediate command interest derived from data collected by the team was provided to the commanders concerned during exit interviews. In those instances when corrective action was appropriate, measures to relieve the situation were immediately initiated by the chain of command.

**CONFIDENTIAL**



# CONFIDENTIAL

## IV. Questionnaire

M16A1 Rifle Field Survey, Republic of Vietnam  
January - February 1968

What is your unit? (Division or Separate Brigade) \_\_\_\_\_.

Grade \_\_\_\_\_

How many months in Vietnam \_\_\_\_\_.

Where from if not CONUS \_\_\_\_\_ MOS \_\_\_\_\_ Duty Position \_\_\_\_\_.  
(Sgd Ldr, Rifleman, etc.)

1. Which of the following weapons have you used in combat?

a. M14 \_\_\_\_\_; b. M16 w/o new buffer or chrome chamber \_\_\_\_\_;

c. M16 w/new buffer only \_\_\_\_\_; d. M16 w/new buffer and chrome  
chamber \_\_\_\_\_.

2. Delete

3. Did you receive formal M16 training before arriving in RVN?

Yes \_\_\_\_; No \_\_\_\_\_. Since arriving in RVN? Yes \_\_\_\_; No \_\_\_\_\_.

4. If you received fromal M16 training, how many hours did you  
receive:

	Before Coming to RVN	In RVN
a. Mechanical training	_____	_____
b. Range firing	_____	_____
c. Tactical live fire exercises	_____	_____

5. Do you have the following cleaning materials or are they  
available in the unit?

	Yes	No		Yes	No
a. Cleaning rod	_____	_____	e. Patches	_____	_____
b. LSA lubricant	_____	_____	f. Pipe cleaners	_____	_____
c. Chamber brush	_____	_____	g. Bore cleaner	_____	_____
d. Bore brush	_____	_____			

# CONFIDENTIAL

6. Do you normally carry any of the following with you on combat operations?

	Yes	No		Yes	No
a. Cleaning Rod	___	___	e. Patches	___	___
b. LSA lubricant	___	___	f. Pipe cleaners	___	___
c. Chamber brush	___	___	g. Bore cleander	___	___
d. Bore brush	___	___			

If so, how do you usually carry them? \_\_\_\_\_

7. Is your rifle equipped with: a. New buffer? Yes \_\_\_; No \_\_\_\_.  
(How long \_\_\_ wks); b. Chrome plated chamber? Yes \_\_\_; No \_\_\_\_.  
(How long? \_\_\_ wks).

8. When was the last time you zeroed your M16? \_\_\_ wks ago.

9. How many rounds of 5.56 ammo do you normally carry on operations?  
ball \_\_\_; tracer \_\_\_\_.

10. Do you lubricate your ammo? Yes \_\_\_; No \_\_\_\_.

11. When was the last time you received instruction on the care  
and cleaning of: a. The M16 \_\_\_\_\_ (day, month, year);  
b. Its ammunition \_\_\_\_\_ (day, month, year);  
c. Its magazine \_\_\_\_\_ (day, month, year)?

12. Have you ever experienced a failure of the bolt to lock on  
the M16? Yes \_\_\_; No \_\_\_\_\_. If so, how many times? \_\_\_\_\_.

13. Have you ever used the BOLT ASSIST? Yes \_\_\_; No \_\_\_\_\_. If  
yes, what percent of the time did it clear the problem? \_\_\_\_%.

## CONFIDENTIAL

14. How many magazines do you normally carry on operations? \_\_\_\_.
15. In combat, what percentage of the time do you use the full automatic mode of fire \_\_\_\_%; semiautomatic mode of fire \_\_\_\_%.
16. When using the full automatic mode, what percentage of time do you fire in short bursts (2-3 rounds) \_\_\_\_%; in long bursts (10-20 rounds) \_\_\_\_%.
17. What is largest number of rounds you have fired in any one day of combat? \_\_\_\_ rounds.
18. Have you been issued a card with care and cleaning instructions for the M16? Yes \_\_\_\_; No \_\_\_\_\_. If so, do you still have it? Yes \_\_\_\_; No \_\_\_\_\_.
19. Does your unit test fire individual weapons? Yes \_\_\_\_; No \_\_\_\_\_.
20. If the answer to 19 is yes, is a regular schedule prescribed? Yes \_\_\_\_; No \_\_\_\_\_. If yes, please explain the schedule \_\_\_\_\_.
21. To the best of your recollection, how often have you cleaned your M16? \_\_\_\_\_.
22. How many rounds do you usually load in a magazine? \_\_\_\_ rounds.
23. Approximately how many rounds have you fired with the M16 during the past four months? 0-500 \_\_\_\_, 500-1000 \_\_\_\_, 1000-1500 \_\_\_\_, 1500-2000 \_\_\_\_, more than 2000 \_\_\_\_\_.
24. During the past four months, did you experience a failure to extract? Yes \_\_\_\_; No \_\_\_\_\_. If yes, how many times? \_\_\_\_ times.

# CONFIDENTIAL

25. Have you, during the last four months, had problems with a round sticking in the chamber when it was left for periods of:

0-8 hours Yes \_\_\_, No \_\_\_; 9-16 hours Yes \_\_\_, No \_\_\_; 17-24 hours Yes \_\_\_, No \_\_\_.

26. Does your unit have weapons inspection? Yes \_\_\_; No \_\_\_.

If yes, how many times a week? \_\_\_. Who inspects the weapons?

Fire team ldr, Sqd ldr, Plat sgt, Plat ldr, CO? (Circle one).

Does your unit inspect magazines and ammo? Yes \_\_\_; No \_\_\_.

27. Approximately what percentage of the ammo that you fire in combat is tracer? \_\_\_\_%.

28. Give to the best of your recollection, how often you cleaned your magazines and ammo. \_\_\_\_\_.

29. Which of the following do you prefer as your individual weapon? M16 \_\_\_; M14 \_\_\_; M16 Commando (XM177E1 SMG) \_\_\_; Other \_\_\_ (specify).

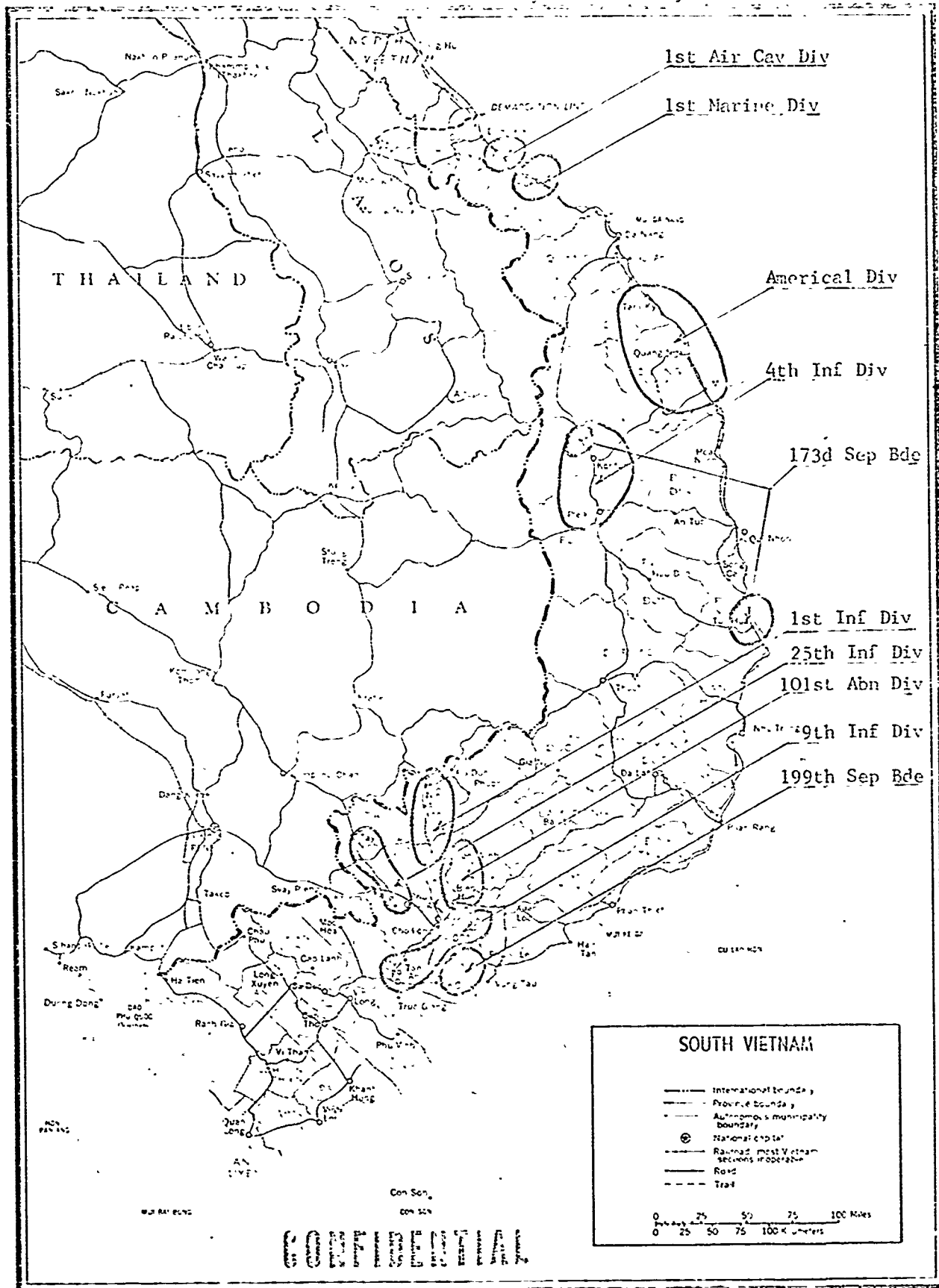
30. What do you like about the M16? \_\_\_\_\_.

31. What do you dislike about the M16? \_\_\_\_\_.

32. Additional comments \_\_\_\_\_.

CONFIDENTIAL

V. General Location of Units Surveyed  
(24 January - 5 February 1966)



CONFIDENTIAL

# CONFIDENTIAL

## VI. Survey Team Composition

### Team Chief

Mr. John A. Lockerd (GS-15)  
Weapon Systems Analysis Directorate  
Office Chief of Staff, Army  
Headquarters, Department of the Army

### U.S. Army, Pacific Project Officer

Mr. T. C. Murphy (GS-14)  
G-3 Section  
Headquarters, U.S. Army, Pacific

### U.S. Army, Vietnam Project Officer

COL J. T. Price  
M16 Project Officer  
G-4 Section  
Headquarters, U.S. Army, Vietnam

### Team Members

LTC Neil G. Nelson  
Directorate of Individual Training  
Deputy Chief of Staff for Personnel  
Headquarters, Department of the Army

LTC Dean F. Schnoor  
Directorate of Materiel Acquisition  
Deputy Chief of Staff for Logistics  
Headquarters, Department of the Army

LTC John D. A. Hogan, Jr.  
Directorate of Doctrine and Systems  
Assistant Chief of Staff for Force Development  
Headquarters, Department of the Army

LTC George H. Gardes  
Directorate of Plans and Programs  
Office, Chief of Research and Development  
Headquarters, Department of the Army

LTC David P. Thoreson  
Weapon Systems Analysis Directorate  
Office Chief of Staff, Army  
Headquarters, Department of the Army

# CONFIDENTIAL

## VII. Itinerary Within Vietnam (24 January - 5 February 1968)

Headquarters USARV	24 January
Headquarters USARV 1st Logistical Command	25 January
9th Infantry Division	26 January
9th Infantry Division	27 January
1st Logistical Command 90th Replacement Battalion	28 January
Headquarters MACV 90th Replacement Battalion	29 January
22d Replacement Battalion Americal Division	30 January
Americal Division	31 January
Headquarters III Marine Amphibious Force	1 February
1st Marine Division 3d Marine Division	2 February
1st Marine Division 3d Marine Division	3 February
Headquarters USARV 90th Replacement Battalion	4 February
Headquarters USARV Headquarters MACV	5 February

# CONFIDENTIAL

## VIII. Analysis of Survey Data

### General

All findings are based upon the results of personal interviews and data collected from questionnaires.

Display and analysis of questionnaire data were simplified through the use of a SUMX computer program. (Frequency distributions of each questionnaire item are contained in Section X.) The SUMX program was also used to produce a series of matrixes which relate responses to one item with those of another. (Items examined through this technique are listed in Section XI.)

### Major Unit Comparisons

Cleaning frequency and unit maintenance inspection data shown in Table 1 reflect that:

1. Men tended to clean their rifles two to three times more frequently than they cleaned their magazines and ammunition. This tendency was encouraged through unit maintenance inspections, which also emphasized the rifle rather than the entire rifle system.
2. Frequency of cleaning was generally greater among units that conducted more maintenance inspections. However, other factors also influenced cleaning frequency, for example, how often the rifle was fired and the user's anticipated need for a reliably functioning rifle. Nontactical USARV units, for example, cleaned less frequently than the theater average, despite a higher than theater average

CONFIDENTIAL



CONFIDENTIAL

unit maintenance inspection level. The opposite behavior was observed in the Americal Division where cleaning frequency was relatively high and unit inspections infrequent.

Review of information regarding lubrication of ammunition, test firing, and the buffer retrofit program (Table 2) indicates:

1. One quarter of all men armed with the M16 lubricated their ammunition - a practice contrary to all published directives.

(During the survey over-use of LSA lubricant on the rifle and ammunition appeared to decrease as the survey team traveled northward from the Delta to the demilitarized zone. The general climate was dryer in the north.)

2. Most individuals test fired their rifles. The lowest incidence of test firing was among nondivisional USARV units and separate brigades.

3. The buffer retrofit program was not complete (84 percent of those surveyed indicated they had new buffers) at the time of the survey, although units within USARV had reported 100 percent completion of this program during November 1967.

The following conclusions have been drawn from ammunition consumption data and M16 training information:

1. The theater ratio of ball to tracer ammunition for men armed with the M16 was 4:1. This ratio varied appreciably among units (unit averages were a product of even wider differences among individuals, with many men firing 100 percent tracer).

CONFIDENTIAL

## CONFIDENTIAL

2. All men armed with the M16 had not received formal rifle training in-country (28 percent of the men surveyed indicated that they had not received this training). Percentages of men receiving training varied appreciably among major units. The low percentage (61 percent) in the Americal Division was partially due to responses from members of its 11th brigade, which had been in-country two months and was not required to process personnel through the divisional replacement training center upon arrival in Vietnam.

Major unit statistical data regarding zeroing (Table 4) and failures to extract (Table 5) indicate that:

1. Zeroing of rifles varied appreciably among units (the percentage of men who have not zeroed in the 25th Infantry Division was three times greater than that of the 101st Airborne Division). Differences among units with respect to personnel turbulence and rate of weapon exchange also contributed to differences in zeroing history.

2. Failures to extract have occurred with enough frequency to reduce confidence in the M16. The 1st Marine Division had the highest incidence of this failure (an average of 7.0 failures per man reporting failures within the last four months). Close comparison of failures to extract among units could not be made without more accurate information about unit 5.56mm ammunition consumption rates than the survey produced.

CONFIDENTIAL

TABLE 1. CLEANING FREQUENCY & UNIT INSPECTIONS BY UNIT

UNIT	CLEANING FREQUENCY (Number of Times Per Month)		UNIT MAINTENANCE INSPECTIONS (% Indicating Inspections are Conducted)	
	RIFLES	MAGAZINES & AMMUNITION	RIFLES	MAGAZINES & AMMUNITION
1st Inf Div	21.0 (109)	8.7 (109)	91% (100)	78% (93)
1st Air Cav Div	18.3 (143)	5.1 (143)	64% (120)	47% (95)
4th Inf Div	22.5 (37)	4.8 (41)	68% (37)	53% (34)
9th Inf Div	21.6 (419)	8.4 (419)	79% (406)	64% (175)
25th Inf Div	19.5 (79)	6.3 (80)	87% (77)	63% (59)
Americal Div	21.9 (284)	9.0 (285)	66% (273)	39% (214)
101st Abn Div	26.1 (63)	11.1 (63)	82% (58)	71% (45)
Sep Brigades (173d & 199th)	23.1 (54)	9.9 (54)	80% (50)	71% (41)
Other USARV Units	16.8 (692)	6.9 (693)	81% (628)	64% (480)
1st Marine Div	24.9 (124)	10.8 (124)	100% (119)	78% (105)
THEATER AVERAGE	20.4 (2004)	8.1 (2011)	79% (1868)	61% (1341)

1. Numbers contained within parenthesis are total men responding to the question.

CONFIDENTIAL

# CONFIDENTIAL

TABLE .. LUBRICATION OF AMMUNITION, TEST FIRING & BUFFER RETROFIT BY UNIT<sup>1/</sup>

UNIT	ACTIVITY					
	LUBRICATION OF AMMUNITION (% Indicating Ammunition is NOT Lubricated)		TEST FIRING (% Indicating They DO Test Fire Rifles)		BUFFER RETROFIT (% Indicating They HAVE New Buffer Installed)	
1st Inf Div	81%	( 103)	96%	( 107)	93%	( 109)
1st Air Cav Div	79%	( 140)	84%	( 128)	87%	( 142)
4th Inf Div	76%	( 51)	79%	( 43)	69%	( 51)
9th Inf Div	65%	( 390)	85%	( 407)	85%	( 419)
25th Inf Div	78%	( 76)	84%	( 77)	89%	( 80)
Americal Div	74%	( 271)	87%	( 281)	93%	( 283)
101st Abn Div	66%	( 62)	95%	( 61)	78%	( 63)
Sep Brigades (173d & 199th)	64%	( 53)	73%	( 52)	93%	( 54)
Other USARV Units	82%	( 660)	74%	( 631)	78%	( 693)
1st Marine Div	94%	( 116)	92%	( 124)	93%	( 124)
THEATER AVERAGE	77%	(1922)	82%	(1911)	84%	(2018)

1. Numbers contained within parenthesis are total men responding to the question.

# CONFIDENTIAL

CONFIDENTIAL

TABLE 3. AMMUNITION CONSUMPTION & M16 TRAINING IN VIETNAM BY UNIT<sup>1/</sup>

UNIT	ACTIVITY				
	AMMUNITION CONSUMPTION (Consumption Ratio by Type Ammunition)			FORMAL M16 TRAINING IN VIETNAM (% Indicating Training WAS Received in Vietnam)	
	BALL	TRACER	BALL TO TRACER RATIO		
1st Inf Div	79%	21%	3.8 : 1 ( 109)	78%	( 107)
1st Air Cav Div	79%	21%	3.8 : 1 ( 143)	74%	( 128)
4th Inf Div	91%	9%	10.1 : 1 ( 51)	76%	( 45)
9th Inf Div	73%	27%	2.7 : 1 ( 419)	85%	( 377)
25th Inf Div	85%	15%	5.7 : 1 ( 80)	68%	( 78)
Americal Div	73%	27%	2.7 : 1 ( 285)	61%	( 241)
101st Abn Div	72%	28%	2.6 : 1 ( 63)	77%	( 53)
Sep Brigades (173d & 199th)	83%	17%	4.9 : 1 ( 54)	69%	( 49)
Other USARV Units	85%	15%	5.7 : 1 ( 693)	63%	( 597)
1st Marine Div	93%	7%	13.3 : 1 ( 124)	89%	( 123)
THEATER AVERAGE	80%	20%	4.0 : 1 (2021)	72%	(1798)

1. Numbers contained within parenthesis are total men responding to the question.

CONFIDENTIAL

# CONFIDENTIAL

TABLE 4. ZEROING HISTORY BY UNIT

UNIT	ZEROING HISTORY				Total Men Responding to Question
	Never Zeroed	Zeroed W/in Last 3 Months <sup>1/</sup>	Zeroed Over 3 Months Ago <sup>1/</sup>		
1st Inf Div	8% ( 8)	60% ( 61)	32% ( 32)		100% ( 101)
1st Air Cav Div	8% ( 11)	41% ( 54)	50% ( 66)		100% ( 131)
4th Inf Div	10% ( 5)	69% ( 33)	21% ( 10)		100% ( 48)
9th Inf Div	16% ( 62)	65% ( 251)	19% ( 73)		100% ( 386)
25th Inf Div	25% ( 19)	19% ( 14)	56% ( 42)		100% ( 75)
Americal Div	11% ( 30)	64% ( 174)	24% ( 66)		100% ( 270)
101st Abn Div	7% ( 4)	73% ( 43)	20% ( 12)		100% ( 59)
Sep Brigades (173d & 199th)	14% ( 6)	55% ( 24)	32% ( 14)		100% ( 44)
Other USARV Units	5% ( 28)	50% ( 300)	46% (275)		100% ( 603)
1st Marine Div	6% ( 7)	87% ( 104)	7% ( 8)		100% ( 119)
THEATER AVERAGE	10% (180)	58% (1058)	33% (598)		100% (1836)

1. Direct comparison among units is misleading since the average length of time in country varies among units.

# CONFIDENTIAL

TABLE 3. FAILURE TO EXTRACT BY UNIT

UNIT	FAILURE TO EXTRACT <sup>1/</sup>			
	% Indicating No Failures	% Indicating One or More Failures	Average No. of Failures (Per Man Reporting Failures)	Total Men Responding to Question
1st Inf Div	68% ( 64)	32% ( 30)	5.2	100% ( 94)
1st Air Cav Div	55% ( 63)	45% ( 52)	4.9	100% ( 115)
4th Inf Div	68% ( 25)	32% ( 12)	3.2	100% ( 37)
9th Inf Div	56% ( 135)	44% (104)	4.5	100% ( 239)
25th Inf Div	73% ( 54)	27% ( 20)	5.0	100% ( 74)
Americal Div	55% ( 64)	45% ( 52)	4.4	100% ( 116)
101st Abn Div	44% ( 23)	56% ( 29)	6.3	100% ( 52)
Sep Brigades (173d & 199th)	57% ( 28)	43% ( 21)	5.6	100% ( 49)
Other USARV Units	76% ( 432)	24% (136)	3.9	100% ( 568)
1st Marine Div	52% ( 37)	48% ( 34)	7.0	100% ( 71)
<b>THEATER AVERAGE</b>	<b>65% (925)</b>	<b>35% (490)</b>	<b>4.8</b>	<b>100% (1415)</b>

1. Occurring w/in last four months

# CONFIDENTIAL

## M16 Training

### Training before Vietnam.

A total of 23 percent of all men questioned who came direct from the Continental United States indicated that they had received no formal M16 training prior to arrival in Vietnam (Table 6). Of those men from all other theaters, 73 percent stated they had not received such training before arrival (Table 6). The pronounced tendency for non-CONUS replacements to be untrained was to be expected since M16's were not generally available for training outside of the CONUS training base (84 percent of all men indicating they were non-CONUS replacements were from units in Germany).

How serious the lack of M16 training for men prior to their arrival in Vietnam depends upon how these men are employed after their arrival. Of those men who indicated they had not received any formal M16 training prior to arrival in Vietnam examination by MOS (Table 7), duty position (Table 8), and grade (Table 9) suggests that:

1. Many of the men untrained on the M16 before their arrival in Vietnam were assigned to infantry battalions (35 percent of untrained men noted in the sample had MOS's common to infantry battalions).

2. A significant number of men in this group were in grades and duty positions that required them to have detailed knowledge

# CONFIDENTIAL



CONFIDENTIAL

of the rifle to meet their supervisory responsibilities (16 percent of this untrained group were either fire team leaders, squad leaders, or platoon sergeants and 80 percent of them were in grades E-4 through E-6).

3. The tendency of men in this M16 untrained-before-Vietnam group to be leaders was even more pronounced among non-CONUS replacements (22 percent of non-CONUS M16 untrained men were either fire team leaders, squad leaders or platoon sergeants and 75 percent were in grades E-4 through E-6).

Although a high percentage of men indicated they had not received any M16 rifle training before arrival in Vietnam (24 percent), there is good reason to believe that this problem will be reduced significantly in the near future. Examination of the untrained-before-Vietnam group by deployment month (Table 10) reveals a pronounced trend toward reduction of the numbers of men slipping through without M16 training (only 4 percent of the men deploying during October 1967 - January 1968 indicated they were untrained).

#### Training in Vietnam.

All men armed with the M16 had not received formal rifle training in-country (28 percent of the men surveyed said they had not received this training). Percentages of men receiving M16 training varied appreciably among major units (Table 3).

CONFIDENTIAL

CONFIDENTIAL

USARV M16 training policies and procedures did not distinguish among replacements by theater source or by the amount of rifle training men have received before their arrival in Vietnam. The number of untrained replacements which have arrived in Vietnam suggests consideration of two training programs, the present one for most men and another more intensive one for the untrained. If two programs are not established, then, as a minimal measure, a system should be used which guarantees that the untrained replacements will have a higher probability of receiving in-country training than those with previous training.

Adequate training policies, guidance, and directives have been published by Headquarters, MACV, and Headquarters, USARV. These directives were not consistently available among units conducting replacement training at the time of the survey.

M16 training observed at divisional replacement centers did not always comply with MACV or USARV training directives.

#### Unit Armorers

Many unit armorers lacked formal training and adequate knowledge of M16 rifle maintenance. As a result of this failing, many rifles that properly should have been repaired by the unit armorer (a rifle with a broken extractor, for example) were turned in by the rifleman and repaired at a higher echelon. Other unit armorer duties, such as periodic lubrication of detent springs, were often neglected.

CONFIDENTIAL

# CONFIDENTIAL

TABLE 6. M16 TRAINING "BEFORE" VIETNAM BY THEATER SOURCE

M16 TRAINING BEFORE VIETNAM	THEATER SOURCE <sup>1/</sup>		TOTALS
	CONUS	NON-CONUS	
YES	77% (1506)	27% (12)	76% (1518)
NO	23% ( 445)	73% (32)	24% ( 477)
TOTALS	100% (1951)	100% (44)	100% (1995)

1. Percentages apply only to responses of YES or NO.  
There were 26 non-responses - all by men from CONUS.

TABLE 7. THEATER SOURCE BY MOS FOR THOSE MEN WHO INDICATED  
THEY HAD NOT RECEIVED ANY FORMAL M16 TRAINING  
PRIOR TO ARRIVAL IN VIETNAM

MOS	THEATER SOURCE		TOTALS
	CONUS	NON-CONUS	
11B (Light Wpns Infantryman)	13% (58)	28% ( 9)	14% (67)
11C (Inf Indirect Fire Crewman)	4% (18)	3% ( 1)	4% (19)
11D (Armor Intel Specialist)	2% ( 8)	6% ( 2)	2% (10)
11G (Inf Senior Sergeant)	- ( 0)	- ( 0)	- ( 0)
11H (Inf Direct Fire Crewman)	1% ( 4)	- ( 0)	1% ( 4)
31B & F (Radio Mech & Com- munication Chief)	3% (13)	- ( 0)	3% (13)
36A (Wireman)	1% ( 3)	3% ( 1)	1% ( 4)
64A, B & C (Drivers)	3% (15)	6% ( 2)	4% (17)
71A & B (Clerk & Clerk Typist)	2% ( 9)	3% ( 1)	2% (10)
76K (Gen Supply Specialist)	- ( 0)	- ( 0)	- ( 0)
94A & B (Cooks)	3% (15)	6% ( 2)	4% (17)
All Other Enl	67% (300)	44% (14)	65% (314)
1542 (Inf Off)	<1% ( 2)	- ( 0)	<1% ( 2)
TOTALS	100% (445)	100% (32)	100% (477)

# CONFIDENTIAL

TABLE 8. THEATER SOURCE BY DUTY POSITION FOR THOSE MEN WHO INDICATED THEY HAD NOT RECEIVED ANY FORMAL M16 TRAINING PRIOR TO ARRIVAL IN VIETNAM

DUTY POSITION	THEATER SOURCE		TOTALS
	CONUS	NON-CONUS	
Other or No Response	73% (323)	53% (17)	71% (340)
Rifleman	7% (33)	16% (5)	8% (38)
Grenadier	< 1% (1)	- (0)	< 1% (1)
Auto Rifleman	1% (4)	- (0)	1% (4)
Fire Team Ldr	2% (1)	3% (1)	3% (12)
Squad Ldr	10% (46)	16% (5)	11% (51)
Platoon Sgt	2% (8)	3% (1)	2% (9)
Plat Ldr/CO	1% (4)	- (0)	1% (4)
RTO/Wireman	3% (15)	6% (2)	4% (17)
Armorer	- (0)	3% (1)	< 1% (1)
TOTALS	100% (445)	100% (32)	100% (477)

TABLE 9. THEATER SOURCE BY GRADE FOR THOSE MEN WHO INDICATED THEY HAD NOT RECEIVED ANY FORMAL M16 TRAINING PRIOR TO ARRIVAL IN VIETNAM

GRADE	THEATER SOURCE		TOTALS
	CONUS	NON-CONUS	
Other or No Response	2% (8)	- (0)	2% (8)
E-1 thru E-3	16% (69)	25% (8)	16% (77)
E-4	47% (208)	41% (13)	45% (221)
E-5	27% (122)	22% (7)	27% (129)
E-6	7% (29)	12% (4)	7% (33)
E-7 thru E-9	1% (5)	- (0)	1% (5)
O-1 thru O-4	1% (4)	- (0)	1% (4)
TOTALS	100% (445)	100% (32)	100% (477)

CONFIDENTIAL

TABLE 10. RECEIPT OF FORMAL M16 TRAINING BEFORE ARRIVAL IN VIETNAM  
BY DEPLOYMENT MONTH

MONTH OF DEPLOYMENT	RECEIPT OF FORMAL M16 TRAINING BEFORE VN			
	YES		NO	TOTALS
Jan 68	96%	(153)	4% (6)	100% 159
Dec 67	98%	(123)	2% (2)	100% 125
Nov 67	93%	(89)	7% (7)	100% 96
Oct 67	96%	(107)	4% (5)	100% 112
Sep 67	87%	(61)	13% (9)	100% 70
Aug 67	83%	(95)	17% (19)	100% 114
Jul 67	92%	(56)	8% (5)	100% 61
Jun 67	80%	(74)	20% (18)	100% 92
May 67	85%	(89)	15% (16)	100% 105
Apr 67	83%	(86)	17% (18)	100% 104
Mar 67	80%	(139)	20% (35)	100% 174
Feb 67	58%	(359)	42% (260)	100% 619
Jan 67	69%	(37)	31% (17)	100% 54
Dec 66	62%	(8)	38% (5)	100% 13
Nov 66	18%	(2)	82% (9)	100% 11
Oct 66	43%	(3)	57% (4)	100% 7
Sep 66	40%	(2)	60% (3)	100% 5
Aug 66	31%	(11)	69% (24)	100% 35
Jul 66	50%	(7)	50% (7)	100% 14
Jun 66	80%	(4)	20% (1)	100% 5
TOTALS	75%	(1505)	24% (470)	100% 1975

CONFIDENTIAL

CONFIDENTIAL

Maintenance and Supply

Adequate quantities of repair parts, cleaning materials and equipment were generally available in Vietnam. However, unbalanced distribution among depots occasionally resulted in temporary shortages which affected using units. For example, some units reported shortages of bore brushes with due-ins over two months old, while the theater had not been totally out of stock since November 1967.

Cleaning materials such as the cleaning rod, lubricant, brushes, and patches, were generally available to the rifleman and he usually carried most items with him in the field (see questions 5 and 6, Section X). Pipe cleaners and bore cleaner, however, were often not available.

Unit armorers frequently did not accompany units into the field and as a consequence, field repair of weapons was neglected. Greater use of contact teams would reduce this problem and would also compensate for lack of skill among unit armorers.

The quality of maintenance by the rifleman was directly influenced by the degree of supervisory emphasis placed on care and cleaning within the unit. Men tended to clean their rifles two to three times more frequently than they cleaned their magazines and ammunition (Table 1). This trend was encouraged through unit maintenance

CONFIDENTIAL

CONFIDENTIAL

inspections which also emphasized the rifle rather than the entire rifle system. Additional information regarding cleaning frequency and unit inspections is displayed in questions 21, 26, and 28 of Section X.

Survey data supports two product improvements presently under development.

1. The desire for magazines of greater capacity than 20 rounds was frequently expressed.

2. On-weapon storage capacity for cleaning materials is required. This was demonstrated by the data contained in question 6h of Section X, which indicates that there was no means generally satisfactory to the rifleman for carrying these materials.

Reliability and Acceptability.

Failures to extract still occurred with enough frequency to reduce confidence in the M16. (Table 5) Among those men surveyed, 35 percent had experienced at least one such failure within the previous four months (the average number of reported failures was 4.8). Attempts to establish a statistically significant correlation between failures and such possible causes as cleaning habits, overlubrication, and the extent or recency of the user's mechanical training were unsuccessful. The fact that it has been impossible to statistically isolate the causative factors from field survey data

CONFIDENTIAL

CONFIDENTIAL

suggests that failures to extract were caused by more than one variable. That is, the problem was not with maintenance, ammunition, or defective parts alone but was rather a combination of several variables. Consequently, system reliability can be improved only by continued product improvement and user effort.

A total of 42 percent of those surveyed indicated they had experienced at least one failure to lock. (Of those reporting this failure, the average number of failures was 5.3; see question 12, Section X.)

Half of the men reported having used the bolt assist and most of these (69 percent) indicated that use of the bolt assist had cleared the malfunction. (See question 13, Section X.)

Data relating to weapon performance and acceptability are shown in the answers to questions 29, 30, and 31 of Section X. In general, men armed with the M16 in Vietnam rated this rifle's performance high. Most frequently lauded were its light weight and its firepower. However, many men entertained some misgivings about the M16's reliability (33 percent of the men surveyed made adverse comments on either the rifle's sensitivity or its reliability). When asked what weapon they would prefer to carry in combat, 85 percent indicated that they wanted either the M16 or its submachine gun version, the XM177E1-2. The Office Secretary of Defense field survey conducted five months earlier reported: "Less than one half of one percent of

CONFIDENTIAL



CONFIDENTIAL

of all personnel interviewed stated that they would exchange their M16 for another rifle." This difference in acceptance figures may reflect differences in data collection techniques. The Office Secretary of Defense survey derived its 99.5 percent acceptance figure from personal interviews, primarily of leaders, rather than from anonymous questionnaires completed by everyone armed with the weapon. While the 85 percent acceptance figure obtained by this survey does not show a particularly high level of confidence in the M16, continued introduction of the chrome chambered model, with its expected lower incidence of failures to extract, should improve user confidence. Many men who had recently received an M16 with a chrome chamber indicated that the rifle was significantly more reliable than earlier models they had used.

General Usage.

Test firing data displayed in Tables 2, 11, and 12 indicates:

1. Extent of test firing varied appreciably among units (this is an activity strongly influenced by unit standard operating procedures and command emphasis).
2. A greater percentage of leaders, from fire team to platoon level, test fired than men within the rifle squads. (This fact suggests that leaders know what should be done but do not always insist upon performance from their men.)

CONFIDENTIAL

# CONFIDENTIAL

3. Maneuver battalions test fired more than other units - 87 percent of personnel in maneuver battalions indicated that they test fired as compared to 77 percent in other units.

Zeroing information contained in Tables 4, 13, 14, and 15 reflect:

1. Within the theater, 10 percent of the men armed with the M16 had never zeroed their rifles. An additional 33 percent had not confirmed their zero within three months. (USARV quarterly training re rements include zeroing of rifles.)

2. There was no significant difference in zeroing trends by duty position.

3. The need for zeroing was particularly pronounced within maneuver battalions. Despite the fact that zeroing was done more frequently in maneuver battalions (see question 8 in Section X), 12 percent of the men in these battalions had never zeroed as compared to 8 percent in other units. A rapid turnover in men and more frequent exchanges of weapons probably contributed to the greater need for zeroing within maneuver battalions than in other units.

4. The zeroing history of men who have completed their 12 month tours in Vietnam is shown in Table 15. This table permits a more accurate evaluation of zeroing frequency, since the total

CONFIDENTIAL

sample contains men with various lengths of time in Vietnam. Table 15 indicates that 10 percent of all men never zeroed, about half zeroed quarterly (according to USARV directives), and about one-fourth zeroed when their weapon was issued at the beginning of their tour and never thereafter.

The average ammunition load carried was from 39 to 41 normal consumption days of ammunition. Variance in the amount of ammunition carried was quite pronounced (loads varied from seven to over 40 magazines). Although user estimates of ammunition consumption tend to be inflated, the survey data displayed in Table 16 support the judgment that men carry more ammunition than they need.

Most men loaded 18 rounds in their magazines (the theater average is 18.3 rounds).

The consumption ratio of ball to tracer ammunition varied appreciably among units (Table 3) and unit averages were a product of even wider differences among individuals, with many men firing 100 percent tracer.

Men estimated that they used the automatic mode of fire about 34 percent of the time and that about 60 percent of their automatic fire was expended in short bursts.

CONFIDENTIAL

# CONFIDENTIAL

TABLE 11. TEST FIRING BY DUTY POSITION

DUTY POSITION	TEST FIRING <sup>1/</sup>	
	(% Indicating They <u>DO</u> Test Fire Rifles)	
Other or No Response	78%	(1013)
Rifleman	86%	( 361)
Grenadier	100%	( 9)
Auto Rifleman	79%	( 29)
Fire Team Ldr	90%	( 103)
Squad Ldr	90%	( 232)
Platoon Sgt	97%	( 38)
Plat Ldr/CO	95%	( 21)
RTO/Wireman	83%	( 102)
Armorer	100%	( 3)
THEATER AVERAGE	82%	(1911)

1. Numbers contained in parenthesis are total men responding to the question.

TABLE 12. TEST FIRING BY TYPE UNIT

TYPE UNIT	TEST FIRING <sup>1/</sup>	
	(% Indicating They <u>DO</u> Test Fire Rifles)	
Maneuver Battalion	87%	( 984)
Other	77%	( 926)
THEATER AVERAGE	82%	(1910)

1. Numbers contained in parenthesis are total men responding to the question.

# CONFIDENTIAL

CONFIDENTIAL

TABLE 13. ZEROING HISTORY BY DUTY POSITION

DUTY POSITION	ZEROING HISTORY				Total Men Responding to Question	
	Never Zeroed	Zeroed W/in Last 3 Months	Zeroed Over 3 Months Ago			
Other or No Response	10% ( 95)	52% ( 501)	38% (370)		100%	966
Rifleman	12% ( 44)	67% ( 246)	21% ( 75)		100%	365
Grenadier	- ( 0)	50% ( 2)	50% ( 2)		100%	4
Auto Rifleman	4% ( 1)	89% ( 25)	7% ( 2)		100%	28
Fire Team Ldr	12% ( 12)	62% ( 63)	26% ( 27)		100%	102
Squad Ldr	8% ( 17)	59% ( 128)	33% ( 72)		100%	217
Platoon Sgt	- ( 0)	56% ( 18)	44% ( 14)		100%	32
Plat Ldr/CO	5% ( 1)	55% ( 11)	40% ( 8)		100%	20
RTO/Wireman	10% ( 10)	62% ( 61)	28% ( 28)		100%	99
Armorer	- ( 0)	100% ( 3)	- ( 0)		100%	3
THEATER AVERAGE	10% (180)	58% (1058)	33% (598)		100%	1836

TABLE 14. ZEROING HISTORY BY TYPE UNIT

TYPE UNIT	ZEROING HISTORY				Total Men Responding to Question	
	Never Zeroed	Zeroed W/in Last 3 Months	Zeroed Over 3 Months Ago			
Maneuver Battalion	127 (112)	60% ( 573)	28% (267)		100%	952
Other	8% ( 68)	55% ( 45)	38% (334)		100%	87
THEATER AVERAGE	10% (180)	58% (1058)	33% (601)		100%	1859

CONFIDENTIAL

CONFIDENTIAL

TABLE 15. ZEROING HISTORY BY MONTH FOR ONLY THOSE HAVING  
TWELVE MONTHS IN VIETNAM

TIME SINCE ZEROING (In Months)	ZEROING HISTORY		
	By Month	By Quarter	By 3 Months or Less and Over 3 Months
Never Zeroed	10% ( 51)	10% ( 51)	10% ( 51)
1	20% (109)		
2	18% ( 96)	48% (261)	48% (261)
3	10% ( 56)		
4	4% ( 24)		
5	5% ( 26)	11% ( 61)	
6	2% ( 11)		
7	3% ( 15)		
8	4% ( 21)	8% ( 44)	42% (227)
9	1% ( 8)		
10	1% ( 8)		
11	3% ( 15)	23% (122)	
12	18% ( 99)		
TOTALS	100% 539	100% 539	100% 539

$\bar{x}$  (Average Time Since Zeroing) = 4.96 months  
 $s$  (Standard Deviation) = 4.39 months

CONFIDENTIAL

CONFIDENTIAL

TABLE 16. AMMUNITION LOAD BY TYPE UNIT

ITEM	UNIT		
	Maneuver Bn	All Other	Theater
a. Total Rounds Carried	338 rounds	258 rounds	300 rounds
b. Total Magazines Carried	16.6 magazines	11.3 magazines	14.0 magazines
c. Largest consumption ever experienced in a single day of combat	293 rounds/day	327 rounds/day	308 rounds/day
d. Total consumption (within last 4 months)	1040 rounds	750 rounds	878 rounds
e. Average Daily consumption ( $d \div 120$ )	8.67 rounds/day	6.25 rounds/day	7.32 rounds/day
f. Ammunition Load: Ave Consumption Days ( $a \div e$ )	39 days	41 days	41 days
Max Consumption days ( $a \div c$ )	1.15 days	0.79 days	0.97 days

1. This figure appears to be an inflated estimate made by men who are less experienced than those in maneuver battalions (it should be smaller than the battalion figure of 293 rounds.)

CONFIDENTIAL

# CONFIDENTIAL

## IX. Conclusions and Recommendations

Policies and directives throughout Vietnam which govern M16 training, supply, maintenance, and user care and cleaning were generally adequate. Continued command supervision is necessary to improve compliance with these directives.

With the exception of Vietnam-oriented advanced individual training for infantrymen, all M16 training given to men prior to deployment should be improved. Many leaders were hampered in meeting their supervisory responsibilities by insufficient knowledge of the M16. Frequently, riflemen received either poor M16 training or none before they arrived in Vietnam. (Recently improved clearance procedures within the continental United States have reduced the numbers of men who deploy without rifle training.) In order to improve predeployment rifle training the following measures should be taken:

1. Accelerate introduction of M16 rifles and M16 training for all men in basic combat training at the earliest possible date.
2. Increase M16 instruction for supervisors in all schools producing junior leaders: for example, NCO refresher courses, officer candidate schools, and basic branch courses.
3. Establish procedures to insure receipt of M16 training for men on intertheater transfer to Vietnam.

CONFIDENTIAL



CONFIDENTIAL

USARV required all replacements to complete the same M16 training program. The large number of untrained replacements that have arrived in Vietnam suggest use of two training programs, the present one for most men and another and more intensive one for the totally untrained.

Unit armorers frequently lacked formal training and adequate knowledge of M16 rifle maintenance. Provision for additional training, perhaps through divisional schools or mobile training teams from the 1st Logistical Command, should be made.

Men tended to clean their rifles two to three times more frequently than their magazines. Corroded or dirty ammunition and defective magazines seriously reduce rifle effectiveness. Unit maintenance inspections should emphasize care of the entire rifle system.

Adequate quantities of repair parts and cleaning materials and equipment were generally available in Vietnam. However, unbalanced distribution among depots occasionally resulted in temporary shortages which affected rifle maintenance. Procedures to achieve optimum distribution should be instituted.

Although individuals usually test fired their rifles, the nature and frequency of such firing varied widely among and within units. Test firing, when properly performed, will increase weapon reliability. Significant improvement in rifle effectiveness will

CONFIDENTIAL

# CONFIDENTIAL

be achieved by:

1. Isolation of defective rifles and magazines through periodic test firing by individuals in a combat zone. Design of a standard test firing procedure to accomplish this purpose should be developed by the Project Manager Rifles.

2. Continued command emphasis upon the importance of frequent and properly conducted test firing.

Greater zeroing effort is required, particularly within maneuver battalions. The average frequency of zeroing was every 4.96 months and 10 percent of the men had never zeroed their rifles. Zeroing increases both hit probability and user confidence in his rifle. It also stimulates the appropriate use of aimed fire. Verification of zero should be integrated with test firing, since any object that can visibly register hits may serve as a target.

Performance and acceptability data collected during the survey indicate:

1. The M16's high rate of lethal fire and light weight are qualities particularly suitable for the war in Vietnam.

2. Failures to extract still occurred with enough frequency to reduce confidence in the M16. These failures apparently result from a variety of causes. Factors which could contribute are inadequate maintenance, care and cleaning, and control of ammunition case hardness, or from pitted chambers, or defective parts.

**CONFIDENTIAL**

Consequently, both continued product improvement and user effort are necessary.

3. Introduction of the chromed chamber appeared to reduce the number of failures to extract. However, this improvement has not been fielded long enough to permit adequate evaluation.

4. Most men armed with the M16 in Vietnam rated this rifle's performance high, however, many men entertained some misgivings about the M16's reliability. When asked what weapon they preferred to carry in combat, 85 percent indicated that they wanted either the M16 or its submachine gun version, the XM177E1-2. (The M14 was preferred by 15 percent, while less than one percent wished to carry either the Stoner rifle, the AK-47, the carbine or a pistol.)

5. A field malfunction reporting system should be established throughout USARV. While such a system does not produce reliability data with laboratory precision, it does permit analysis of malfunction trends and would contribute to further improvement in the reliability of the M16.

**CONFIDENTIAL**

# CONFIDENTIAL

## X. Frequency Distributions of Responses to Questionnaire

A series of frequency distributions displaying all responses to each item of the questionnaire were prepared to support the analysis. Each distribution is included in this section except where consolidation permitted an omission. Additional information is superimposed upon each of the inclosed distributions to assist in interpretation. (Instructions to assist interpretation of these distributions are contained on the initial distribution, page 44.)

A listing of each frequency distribution prepared follows:

### Questionnaire Heading

Where from (theater source)

Major unit

Grade

Months in Vietnam

MOS

Duty position

### Questions

1. Type and model of weapon used.
- 3.a. Was formal M16 training received before Vietnam?
- b. Was formal M16 training received in Vietnam?
- 4.a. Hours mechanical training received before Vietnam
- b. Hours of mechanical training received in Vietnam
- c. Total hours of mechanical training received before and in Vietnam.

# CONFIDENTIAL

5.a. to g. Do you have cleaning materials (cleaning rod, LSA, chamber brush, bore brush, patches, pipe cleaners and bore cleaner)?

6.a. to g. Do you carry cleaning materials (a. to g.)?

h. Where are cleaning materials carried?

7.a. Receipt of new buffer

b. Receipt of chrome chamber

8.a. to c. Zeroing history (maneuver battalions, all other, and theater)

9.a. Total ball ammunition carried

b. Total tracer ammunition carried

c. Total ammunition carried (ball and tracer)

10. Lubrication of ammunition

11.a. to c. Weeks since instruction on care and cleaning of M16, ammunition, and magazines

12. Number of failures to lock

13.a. Use of bolt assist

b. Percentage of time use of bolt assist cleared problem

14.a. to c. Number of magazines carried (maneuver battalions, all others, and theater)

15. Percentage of fire in fully automatic mode

16. Percentage of automatic fire expended in short bursts

17.a. to c. Largest number of rounds expended in a single day of combat (maneuver battalions, all others, and theater)

# CONFIDENTIAL

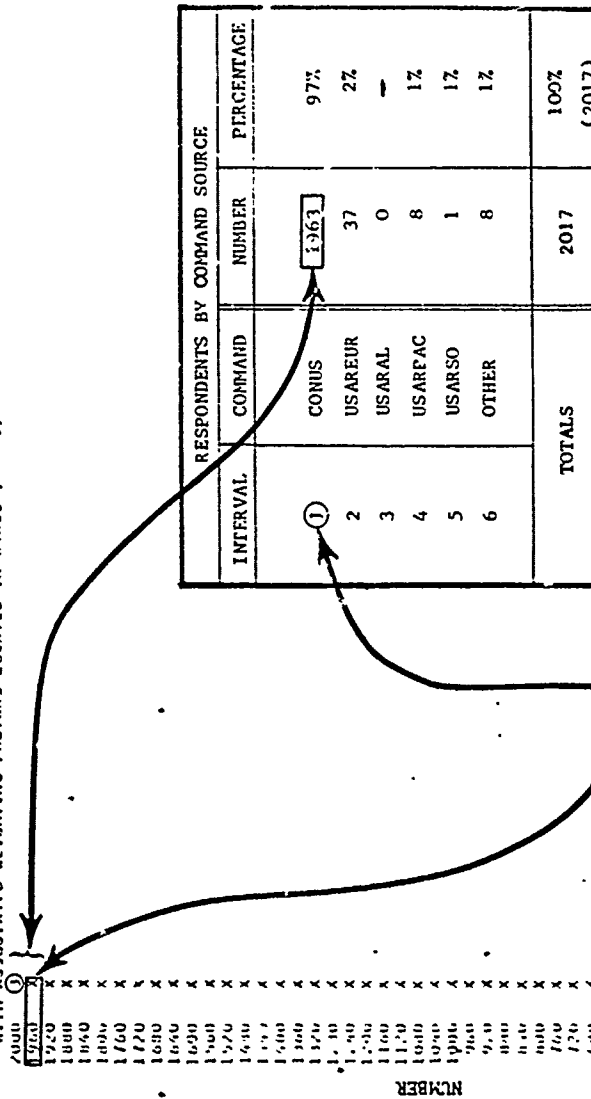
- 18.a. Was care and cleaning card received?
  - b. If issued, is card still in possession?
- 19. Test firing of individual weapons
- 20. Test firing schedule
- 21. M16 rifle cleaning trends
- 22. Number of rounds loaded in magazines
- 23.a. to c. Total rounds fired within last four months  
(maneuver battalions, all others, and theater)
- 24.a. to c. Failures to extract (maneuver battalions, all others, and theater)
- 25.a. to c. Do rounds stick in chamber when left for periods of 0-8 hours, 9-16 hours, or 17-24 hours?
- 26.a. Frequency of unit rifle inspections
  - b. Who conducts unit rifle inspections?
  - c. Are unit magazine and ammunition inspections conducted?
- 27. Amount of tracer ammunition fired
- 28. Magazine and ammunition cleaning frequency
- 29. Weapon performance
- 30.a. to e. What do you like about the M16 system?
- 31.a. to e. What do you dislike about the M16 system?
- 32.a. to c. Additional comments

CONFIDENTIAL

CONFIDENTIAL

NAME OUTPUT -- VERSION 44  
 HIG. STATISTICAL SUMMARIES AS OF 28FEB68

STANDARD HIG. 1, NT# 1 HISTOGRAM OF LOCATION OF SOLDIER LOCATED IN WORDS 45,  
 WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,



An "x" indicates that the number of responses filled up to that level (1960) and a digit (3) was the overflow, i.e. the total number of responses for interval #i was 1960 + 3 or 1963.

Heading: are from

CONFIDENTIAL

CONFIDENTIAL

STANDARD OUTPUT -- VERSION M4  
M16 STATISTICAL SUBROUTINES AS OF 2411008

STANDARD OUTPUT -- VERSION M4  
M16 STATISTICAL SUBROUTINES AS OF 2411008

RESPONDENTS BY MAJOR UNIT			
INTERVAL	UNIT	NUMBER	PERCENTAGE
1	1st Inf Div	109	5%
2	1st Air Cav Div	143	7%
3	4th Inf Div	51	3%
4	9th Inf Div	419	21%
5	25th Inf Div	80	4%
6	Americal Div	285	14%
7	101st Abn Div	63	3%
8	173d & 199th Bde	54	3%
9	Other USARV	693	34%
10	1st Marine Div	124	6%
TOTALS		2021	100%

Heading: Major Unit

CONFIDENTIAL



CONFIDENTIAL

DATA OUTPUT -- VLSJLH, M4  
H10 SIMILITICAL SUMMARIES AS OF 28FEB68

65FANADAC HLOC10 AT# 1 HISTOGRAM OF GRADE LOCATED IN WORDS 0, 0, 4,  
41F11 ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0, 0, 4,

NUMBER  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863  
864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917  
918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971  
972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000  
1001  
1002  
1003  
1004  
1005  
1006  
1007  
1008  
1009  
1010  
1011  
1012  
1013  
1014  
1015  
1016  
1017  
1018  
1019  
1020  
1021  
1022  
1023  
1024  
1025  
1026  
1027  
1028  
1029  
1030  
1031  
1032  
1033  
1034  
1035  
1036  
1037  
1038  
1039  
1040  
1041  
1042  
1043  
1044  
1045  
1046  
1047  
1048  
1049  
1050  
1051  
1052  
1053  
1054  
1055  
1056  
1057  
1058  
1059  
1060  
1061  
1062  
1063  
1064  
1065  
1066  
1067  
1068  
1069  
1070  
1071  
1072  
1073  
1074  
1075  
1076  
1077  
1078  
1079  
1080  
1081  
1082  
1083  
1084  
1085  
1086  
1087  
1088  
1089  
1090  
1091  
1092  
1093  
1094  
1095  
1096  
1097  
1098  
1099  
1100  
1101  
1102  
1103  
1104  
1105  
1106  
1107  
1108  
1109  
1110  
1111  
1112  
1113  
1114  
1115  
1116  
1117  
1118  
1119  
1120  
1121  
1122  
1123  
1124  
1125  
1126  
1127  
1128  
1129  
1130  
1131  
1132  
1133  
1134  
1135  
1136  
1137  
1138  
1139  
1140  
1141  
1142  
1143  
1144  
1145  
1146  
1147  
1148  
1149  
1150  
1151  
1152  
1153  
1154  
1155  
1156  
1157  
1158  
1159  
1160  
1161  
1162  
1163  
1164  
1165  
1166  
1167  
1168  
1169  
1170  
1171  
1172  
1173  
1174  
1175  
1176  
1177  
1178  
1179  
1180  
1181  
1182  
1183  
1184  
1185  
1186  
1187  
1188  
1189  
1190  
1191  
1192  
1193  
1194  
1195  
1196  
1197  
1198  
1199  
1200  
1201  
1202  
1203  
1204  
1205  
1206  
1207  
1208  
1209  
1210  
1211  
1212  
1213  
1214  
1215  
1216  
1217  
1218  
1219  
1220  
1221  
1222  
1223  
1224  
1225  
1226  
1227  
1228  
1229  
1230  
1231  
1232  
1233  
1234  
1235  
1236  
1237  
1238  
1239  
1240  
1241  
1242  
1243  
1244  
1245  
1246  
1247  
1248  
1249  
1250  
1251  
1252  
1253  
1254  
1255  
1256  
1257  
1258  
1259  
1260  
1261  
1262  
1263  
1264  
1265  
1266  
1267  
1268  
1269  
1270  
1271  
1272  
1273  
1274  
1275  
1276  
1277  
1278  
1279  
1280  
1281  
1282  
1283  
1284  
1285  
1286  
1287  
1288  
1289  
1290  
1291  
1292  
1293  
1294  
1295  
1296  
1297  
1298  
1299  
1300  
1301  
1302  
1303  
1304  
1305  
1306  
1307  
1308  
1309  
1310  
1311  
1312  
1313  
1314  
1315  
1316  
1317  
1318  
1319  
1320  
1321  
1322  
1323  
1324  
1325  
1326  
1327  
1328  
1329  
1330  
1331  
1332  
1333  
1334  
1335  
1336  
1337  
1338  
1339  
1340  
1341  
1342  
1343  
1344  
1345  
1346  
1347  
1348  
1349  
1350  
1351  
1352  
1353  
1354  
1355  
1356  
1357  
1358  
1359  
1360  
1361  
1362  
1363  
1364  
1365  
1366  
1367  
1368  
1369  
1370  
1371  
1372  
1373  
1374  
1375  
1376  
1377  
1378  
1379  
1380  
1381  
1382  
1383  
1384  
1385  
1386  
1387  
1388  
1389  
1390  
1391  
1392  
1393  
1394  
1395  
1396  
1397  
1398  
1399  
1400  
1401  
1402  
1403  
1404  
1405  
1406  
1407  
1408  
1409  
1410  
1411  
1412  
1413  
1414  
1415  
1416  
1417  
1418  
1419  
1420  
1421  
1422  
1423  
1424  
1425  
1426  
1427  
1428  
1429  
1430  
1431  
1432  
1433  
1434  
1435  
1436  
1437  
1438  
1439  
1440  
1441  
1442  
1443  
1444  
1445  
1446  
1447  
1448  
1449  
1450  
1451  
1452  
1453  
1454  
1455  
1456  
1457  
1458  
1459  
1460  
1461  
1462  
1463  
1464  
1465  
1466  
1467  
1468  
1469  
1470  
1471  
1472  
1473  
1474  
1475  
1476  
1477  
1478  
1479  
1480  
1481  
1482  
1483  
1484  
1485  
1486  
1487  
1488  
1489  
1490  
1491  
1492  
1493  
1494  
1495  
1496  
1497  
1498  
1499  
1500  
1501  
1502  
1503  
1504  
1505  
1506  
1507  
1508  
1509  
1510  
1511  
1512  
1513  
1514  
1515  
1516  
1517  
1518  
1519  
1520  
1521  
1522  
1523  
1524  
1525  
1526  
1527  
1528  
1529  
1530  
1531  
1532  
1533  
1534  
1535  
1536  
1537  
1538  
1539  
1540  
1541  
1542  
1543  
1544  
1545  
1546  
1547  
1548  
1549  
1550  
1551  
1552  
1553  
1554  
1555  
1556  
1557  
1558  
1559  
1560  
1561  
1562  
1563  
1564  
1565  
1566  
1567  
1568  
1569  
1570  
1571  
1572  
1573  
1574  
1575  
1576  
1577  
1578  
1579  
1580  
1581  
1582  
1583  
1584  
1585  
1586  
1587  
1588  
1589  
1590  
1591  
1592  
1593  
1594  
1595  
1596  
1597  
1598  
1599  
1600  
1601  
1602  
1603  
1604  
1605  
1606  
1607  
1608  
1609  
1610  
1611  
1612  
1613  
1614  
1615  
1616  
1617  
1618  
1619  
1620  
1621  
1622  
1623  
1624  
1625  
1626  
1627  
1628  
1629  
1630  
1631  
1632  
1633  
1634  
1635  
1636  
1637  
1638  
1639  
1640  
1641  
1642  
1643  
1644  
1645  
1646  
1647  
1648  
1649  
1650  
1651  
1652  
1653  
1654  
1655  
1656  
1657  
1658  
1659  
1660  
1661  
1662  
1663  
1664  
1665  
1666  
1667  
1668  
1669  
1670  
1671  
1672  
1673  
1674  
1675  
1676  
1677  
1678  
1679  
1680  
1681  
1682  
1683  
1684  
1685  
1686  
1687  
1688  
1689  
1690  
1691  
1692  
1693  
1694  
1695  
1696  
1697  
1698  
1699  
1700  
1701  
1702  
1703  
1704  
1705  
1706  
1707  
1708  
1709  
1710  
1711  
1712  
1713  
1714  
1715  
1716  
1717  
1718  
1719  
1720  
1721  
1722  
1723  
1724  
1725  
1726  
1727  
1728  
1729  
1730  
1731  
1732  
1733  
1734  
1735  
1736  
1737  
1738  
1739  
1740  
1741  
1742  
1743  
1744  
1745  
1746  
1747  
1748  
1749  
1750  
1751  
1752  
1753  
1754  
1755  
1756  
1757  
1758  
1759  
1760  
1761  
1762  
1763  
1764  
1765  
1766  
1767  
1768  
1769  
1770  
1771  
1772  
1773  
1774  
1775  
1776  
1777  
1778  
1779  
1780  
1781  
1782  
1783  
1784  
1785  
1786  
1787  
1788  
1789  
1790  
1791  
1792  
1793  
1794  
1795  
1796  
1797  
1798  
1799  
1800  
1801  
1802  
1803  
1804  
1805  
1806  
1807  
1808  
1809  
1810  
1811  
1812  
1813  
1814  
1815  
1816  
1817  
1818  
1819  
1820  
1821  
1822  
1823  
1824  
1825  
1826  
1827  
1828  
1829  
1830  
1831  
1832  
1833  
1834  
1835  
1836  
1837  
1838  
1839  
1840  
1841  
1842  
1843  
1844  
1845  
1846  
1847  
1848  
1849  
1850  
1851  
1852  
1853  
1854  
1855  
1856  
1857  
1858  
1859  
1860  
1861  
1862  
1863  
1864  
1865  
1866  
1867  
1868  
1869  
1870  
1871  
1872  
1873  
1874  
1875  
1876  
1877  
1878  
1879  
1880  
1881  
1882  
1883  
1884  
1885  
1886  
1887  
1888  
1889  
1890  
1891  
1892  
1893  
1894  
1895  
1896  
1897  
1898  
1899  
1900  
1901  
1902  
1903  
1904  
1905  
1906  
1907  
1908  
1909  
1910  
1911  
1912  
1913  
1914  
1915  
1916  
1917  
1918  
1919  
1920  
1921  
1922  
1923  
1924  
1925  
1926  
1927  
1928  
1929  
1930  
1931  
1932  
1933  
1934  
1935  
1936  
1937  
1938  
1939  
1940  
1941  
1942  
1943  
1944  
1945  
1946  
1947  
1948  
1949  
1950  
1951  
1952  
1953  
1954  
1955  
1956  
1957  
1958  
1959  
1960  
1961  
1962  
1963  
1964  
1965  
1966  
1967  
1968  
1969  
1970  
1971  
1972  
1973  
1974  
1975  
1976  
1977  
1978  
1979  
1980  
1981  
1982  
1983  
1984  
1985  
1986  
1987  
1988  
1989  
1990  
1991  
1992  
1993  
1994  
1995  
1996  
1997  
1998  
1999  
2000  
2001  
2002  
2003  
2004  
2005  
2006  
2007  
2008  
2009  
2010  
2011  
2012  
2013  
2014  
2015  
2016  
2017  
2018  
2019  
2020  
2021  
2022  
2023  
2024  
2025  
2026  
2027  
2028  
2029  
2030  
2031  
2032  
2033  
2034  
2035  
2036  
2037  
2038  
2039  
2040  
2041  
2042  
2043  
2044  
2045  
2046  
2047  
2048  
2049  
2050  
2051  
2052  
2053  
2054  
2055  
2056  
2057  
2058  
2059  
2060  
2061  
2062  
2063  
2064  
2065  
2066  
2067  
2068  
2069  
2070  
2071  
2072  
2073  
2074  
2075  
2076  
2077  
2078  
2079  
2080  
2081  
2082  
2083  
2084  
2085  
2086  
2087  
2088  
2089  
2090  
2091  
2092  
2093  
2094  
2095  
2096  
2097  
2098  
2099  
2100  
2101  
2102  
2103  
2104  
2105  
2106  
2107  
2108  
2109  
2110  
2111  
2112  
2113  
2114  
2115  
2116  
2117  
2118  
2119  
2120  
2121  
2122  
2123  
2124  
2125  
2126  
2127  
2128  
2129  
2130  
2131  
2132  
2133  
2134  
2135  
2136  
2137  
2138  
2139  
2140  
2141  
2142  
2143  
2144  
2145  
2146  
2147  
2148  
2149  
2150  
2151  
2152  
2153  
2154  
2155  
2156  
2157  
2158  
2159  
2160  
2161  
2162  
2163  
2164  
2165  
2166  
2167  
2168  
2169  
2170  
2171  
2172  
2173  
2174  
2175  
2176  
2177  
2178  
2179  
2180  
2181  
2182  
2183  
2184  
2185  
2186  
2187  
2188  
2189  
2190  
2191  
2192  
2193  
2194  
2195  
2196  
2197  
2198  
2199  
2200  
2201  
2202  
2203  
2204  
2205  
2206  
2207  
2208  
2209  
2210  
2211  
2212  
2213  
2214  
2215  
2216  
2217  
2218  
2219  
2220  
2221  
2222  
2223  
2224  
2225  
2226  
2227  
2228  
2229  
2230  
2231  
2232  
2233  
2234  
2235  
2236  
2237  
2238  
2239  
2240  
2241  
2242  
2243  
2244  
2245  
2246  
2247  
2248  
2249  
2250  
2251  
2252  
2253  
2254  
2255  
2256  
2257  
2258  
2259  
2260  
2261  
2262  
2263  
2264  
2265  
2266  
2267  
2268  
2269  
2270  
2271  
2272  
2273  
2274  
2275  
2276  
2277  
2278  
2279  
2280  
2281  
2282  
2283  
2284  
2285  
2286  
2287  
2288  
2289  
2290  
2291  
2292  
2293  
2294  
2295  
2296  
2297  
2298  
2299  
2300  
2301  
2302  
2303  
2304  
2305  
2306  
2307  
2308  
2309  
2310  
2311  
2312  
2313  
2314  
2315  
2316  
2317  
2318  
2319  
2320  
2321  
2322  
2323  
2324  
2325  
2326  
2327  
2328  
2329  
2330  
2331  
2332  
2333  
2334  
2335  
2336  
2337  
2338  
2339  
2340  
2341  
2342  
2343  
2344  
2345  
2346  
2347  
2348  
2349  
2350  
2351  
2352  
2353  
2354  
2355  
2356  
2357  
2358  
2359  
2360  
2361  
2362  
2363  
2364  
2365  
2366  
2367  
2368  
2369  
2370  
2371  
2372  
2373  
2374  
2375  
2376  
2377  
2378  
2379  
2380  
2381  
2382  
2383  
2384  
2385  
2386  
2387  
2388  
2389  
2390  
2391  
2392  
2393  
2394  
2395  
2396  
2397  
2398  
2399  
2400  
2401  
2402  
2403  
2404  
2405  
2406  
2407  
2408  
2409  
2410  
2411  
2412  
2413  
2414  
2415  
2416  
2417  
2418  
2419  
2420  
2421  
2422  
2423  
2424  
2425  
2426  
2427  
2428  
2429  
2430  
2431  
2432  
2433  
2434  
2435  
2436  
2437  
2438  
2439  
2440  
2441  
2442  
2443  
2444  
2445  
2446  
2447  
2448  
2449  
2450  
2451  
2452  
2453  
2454  
2455  
2456  
2457  
2458  
2459  
2460  
2461  
2462  
2463  
2464  
2465  
2466  
2467  
2468  
2469  
2470  
2471  
2472  
2473  
2474  
2475  
2476  
2477  
2478  
2479  
2480  
2481  
2482  
2483  
2484  
2485  
2486  
2487  
2488  
2489  
2490  
2491  
2492  
2493  
2494  
2495  
2496  
2497  
2498  
2499  
2500  
2501  
2502  
2503  
2504  
2505  
2506  
2507  
2508  
2509  
2510  
2511  
2512  
2513  
2514  
2515  
2516  
2517  
2518  
2519  
2520  
2521  
2522  
2523  
2524  
2525  
2526  
2527  
2528  
2529  
2530  
2531  
2532  
2533  
2534  
2535  
2536  
2537  
2538  
2539  
2540  
2541  
2542  
2543  
2544  
2545  
2546  
2547  
2548  
2549  
2550  
2551  
2552  
2553  
2554  
2555  
2556  
2557  
2558  
2559  
2560  
2561  
2562  
2563  
2564  
2565  
2566  
2567  
2568  
2569  
2570  
2571  
2572  
2573  
2574  
2575  
2576  
2577  
2578  
2579  
2580  
2581  
2582  
2583  
2584  
2585  
2586  
2587  
2588  
2589  
2590  
2591  
2592  
2593  
2594  
2595  
2596  
2597  
2598  
2599  
2600  
2601  
2602  
2603  
2604  
2605  
2606  
2607  
2608  
2609  
2610  
2611  
2612  
2613  
2614  
2615  
2616  
2617  
2618  
2619  
2620  
2621  
2622  
2623  
2624  
2625  
26

CONFIDENTIAL

NAME OUTPUT -- VERSION 44  
M16 STATISTICAL SUMMARIES AS OF 28FEB68

STANDARD BLOCIO. NT# 1 HISTOGRAM OF MONTHS IN VIETNAM LOCATED IN WORDS 5,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

NUMBER

650  
637  
626  
611  
590  
585  
572  
559  
546  
533  
520  
507  
494  
481  
460  
455  
442  
429  
416  
403  
390  
377  
364  
351  
330  
325  
312  
299  
286  
273  
260  
247  
234  
221  
208  
195  
182  
169  
156  
143  
130  
117  
104  
91  
78  
65  
52  
39  
26  
13  
INTERVAL 1234567890102030

RESPONDENTS BY NUMBER OF MONTHS IN VIETNAM			
INTERVAL	MONTHS	NUMBER	PERCENTAGE
1	Less Than 1	2	< 1%
2	1	159	8%
3	2	126	6%
4	3	96	5%
5	4	112	6%
6	5	70	3%
7	6	115	6%
8	7	65	3%
9	8	92	5%
10	9	105	5%
11	10	107	5%
12	11	176	9%
13	12	631	31%
14-25	Over 12	157	8%
TOTALS		2013	100%

$\bar{X}$  (ave)=8.65 mos. in VN.  
 $\sigma$  (std dev)=4.49 mos.

Heading: Number of Months in Vietnam

CONFIDENTIAL



CONFIDENTIAL

416 STATISTICAL SUMMARIES AS OF 28FEB68

STANDARD BLOCIO, MT# 1 HISTOGRAM OF DUTY POSITION LOCATED IN WORDS 7,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

NUMBER  
1100  
1070  
1020  
1034  
1012  
990  
960  
946  
924  
900  
850  
836  
814  
792  
770  
748  
726  
704  
682  
660  
638  
616  
594  
572  
550  
528  
506  
484  
462  
440  
418  
396  
374  
352  
330  
308  
286  
264  
242  
220  
198  
176  
154  
132  
110  
88  
66  
44  
22  
INTERVAL 123456789C  
10

RESPONDENTS BY DUTY POSITION			
INTERVAL	DUTY POSITION	NUMBER	PERCENTAGE
1	Others - or No Response	1077	
2	Rifleman	384	41%
3	Grenadier	10	1%
4	Auto Rifleman	29	3%
5	Fire Team Ldr	109	12%
6	Squad Ldr	239	25%
7	Plat Sgt	39	4%
8	Plat Ldr, Co Comdr	21	2%
9	Ammo Bearer, RTU, Wireman	110	12%
10	Armorer	3	0.1%
TOTALS		2021	100% (944)

Heading: Duty Position

CONFIDENTIAL

CONFIDENTIAL

STATISTICAL SUMMARY AS OF 28 FEB 68

45414400C BLOCIO, NT# 1 HISTOGRAM OF WEAPONS USED  
 WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS, 0, LOCATED IN WORDS 8,

NUMBER  
 1100 7  
 1070 X  
 1050 X  
 1030 X  
 1010 X  
 990 X  
 970 X  
 950 X  
 930 X  
 910 X  
 890 X  
 870 X  
 850 X  
 830 X  
 810 X  
 790 X  
 770 X  
 750 X  
 730 X  
 710 X  
 690 X  
 670 X  
 650 X  
 630 X  
 610 X  
 590 X  
 570 X  
 550 X  
 530 X  
 510 X  
 490 X  
 470 X  
 450 X  
 430 X  
 410 X  
 390 X  
 370 X  
 350 X  
 330 X  
 310 X  
 290 X  
 270 X  
 250 X  
 230 X  
 210 X  
 190 X  
 170 X  
 150 X  
 130 X  
 110 X  
 90 X  
 70 X  
 50 X  
 30 X  
 10 X  
 0  
 10  
 20  
 30  
 40  
 50  
 60  
 70  
 80  
 90  
 100  
 110  
 120  
 130  
 140  
 150  
 160  
 170  
 180  
 190  
 200  
 210  
 220  
 230  
 240  
 250  
 260  
 270  
 280  
 290  
 300  
 310  
 320  
 330  
 340  
 350  
 360  
 370  
 380  
 390  
 400  
 410  
 420  
 430  
 440  
 450  
 460  
 470  
 480  
 490  
 500  
 510  
 520  
 530  
 540  
 550  
 560  
 570  
 580  
 590  
 600  
 610  
 620  
 630  
 640  
 650  
 660  
 670  
 680  
 690  
 700  
 710  
 720  
 730  
 740  
 750  
 760  
 770  
 780  
 790  
 800  
 810  
 820  
 830  
 840  
 850  
 860  
 870  
 880  
 890  
 900  
 910  
 920  
 930  
 940  
 950  
 960  
 970  
 980  
 990  
 1000  
 1010  
 1020  
 1030  
 1040  
 1050  
 1060  
 1070  
 1080  
 1090  
 1100  
 1110  
 1120  
 1130  
 1140  
 1150  
 1160  
 1170  
 1180  
 1190  
 1200  
 1210  
 1220  
 1230  
 1240  
 1250  
 1260  
 1270  
 1280  
 1290  
 1300  
 1310  
 1320  
 1330  
 1340  
 1350  
 1360  
 1370  
 1380  
 1390  
 1400  
 1410  
 1420  
 1430  
 1440  
 1450  
 1460  
 1470  
 1480  
 1490  
 1500  
 1510  
 1520  
 1530  
 1540  
 1550  
 1560  
 1570  
 1580  
 1590  
 1600  
 1610  
 1620  
 1630  
 1640  
 1650  
 1660  
 1670  
 1680  
 1690  
 1700  
 1710  
 1720  
 1730  
 1740  
 1750  
 1760  
 1770  
 1780  
 1790  
 1800  
 1810  
 1820  
 1830  
 1840  
 1850  
 1860  
 1870  
 1880  
 1890  
 1900  
 1910  
 1920  
 1930  
 1940  
 1950  
 1960  
 1970  
 1980  
 1990  
 2000  
 2010  
 2020  
 2030  
 2040  
 2050  
 2060  
 2070  
 2080  
 2090  
 2100  
 2110  
 2120  
 2130  
 2140  
 2150  
 2160  
 2170  
 2180  
 2190  
 2200  
 2210  
 2220  
 2230  
 2240  
 2250  
 2260  
 2270  
 2280  
 2290  
 2300  
 2310  
 2320  
 2330  
 2340  
 2350  
 2360  
 2370  
 2380  
 2390  
 2400  
 2410  
 2420  
 2430  
 2440  
 2450  
 2460  
 2470  
 2480  
 2490  
 2500  
 2510  
 2520  
 2530  
 2540  
 2550  
 2560  
 2570  
 2580  
 2590  
 2600  
 2610  
 2620  
 2630  
 2640  
 2650  
 2660  
 2670  
 2680  
 2690  
 2700  
 2710  
 2720  
 2730  
 2740  
 2750  
 2760  
 2770  
 2780  
 2790  
 2800  
 2810  
 2820  
 2830  
 2840  
 2850  
 2860  
 2870  
 2880  
 2890  
 2900  
 2910  
 2920  
 2930  
 2940  
 2950  
 2960  
 2970  
 2980  
 2990  
 3000  
 3010  
 3020  
 3030  
 3040  
 3050  
 3060  
 3070  
 3080  
 3090  
 3100  
 3110  
 3120  
 3130  
 3140  
 3150  
 3160  
 3170  
 3180  
 3190  
 3200  
 3210  
 3220  
 3230  
 3240  
 3250  
 3260  
 3270  
 3280  
 3290  
 3300  
 3310  
 3320  
 3330  
 3340  
 3350  
 3360  
 3370  
 3380  
 3390  
 3400  
 3410  
 3420  
 3430  
 3440  
 3450  
 3460  
 3470  
 3480  
 3490  
 3500  
 3510  
 3520  
 3530  
 3540  
 3550  
 3560  
 3570  
 3580  
 3590  
 3600  
 3610  
 3620  
 3630  
 3640  
 3650  
 3660  
 3670  
 3680  
 3690  
 3700  
 3710  
 3720  
 3730  
 3740  
 3750  
 3760  
 3770  
 3780  
 3790  
 3800  
 3810  
 3820  
 3830  
 3840  
 3850  
 3860  
 3870  
 3880  
 3890  
 3900  
 3910  
 3920  
 3930  
 3940  
 3950  
 3960  
 3970  
 3980  
 3990  
 4000  
 4010  
 4020  
 4030  
 4040  
 4050  
 4060  
 4070  
 4080  
 4090  
 4100  
 4110  
 4120  
 4130  
 4140  
 4150  
 4160  
 4170  
 4180  
 4190  
 4200  
 4210  
 4220  
 4230  
 4240  
 4250  
 4260  
 4270  
 4280  
 4290  
 4300  
 4310  
 4320  
 4330  
 4340  
 4350  
 4360  
 4370  
 4380  
 4390  
 4400  
 4410  
 4420  
 4430  
 4440  
 4450  
 4460  
 4470  
 4480  
 4490  
 4500  
 4510  
 4520  
 4530  
 4540  
 4550  
 4560  
 4570  
 4580  
 4590  
 4600  
 4610  
 4620  
 4630  
 4640  
 4650  
 4660  
 4670  
 4680  
 4690  
 4700  
 4710  
 4720  
 4730  
 4740  
 4750  
 4760  
 4770  
 4780  
 4790  
 4800  
 4810  
 4820  
 4830  
 4840  
 4850  
 4860  
 4870  
 4880  
 4890  
 4900  
 4910  
 4920  
 4930  
 4940  
 4950  
 4960  
 4970  
 4980  
 4990  
 5000  
 5010  
 5020  
 5030  
 5040  
 5050  
 5060  
 5070  
 5080  
 5090  
 5100  
 5110  
 5120  
 5130  
 5140  
 5150  
 5160  
 5170  
 5180  
 5190  
 5200  
 5210  
 5220  
 5230  
 5240  
 5250  
 5260  
 5270  
 5280  
 5290  
 5300  
 5310  
 5320  
 5330  
 5340  
 5350  
 5360  
 5370  
 5380  
 5390  
 5400  
 5410  
 5420  
 5430  
 5440  
 5450  
 5460  
 5470  
 5480  
 5490  
 5500  
 5510  
 5520  
 5530  
 5540  
 5550  
 5560  
 5570  
 5580  
 5590  
 5600  
 5610  
 5620  
 5630  
 5640  
 5650  
 5660  
 5670  
 5680  
 5690  
 5700  
 5710  
 5720  
 5730  
 5740  
 5750  
 5760  
 5770  
 5780  
 5790  
 5800  
 5810  
 5820  
 5830  
 5840  
 5850  
 5860  
 5870  
 5880  
 5890  
 5900  
 5910  
 5920  
 5930  
 5940  
 5950  
 5960  
 5970  
 5980  
 5990  
 6000  
 6010  
 6020  
 6030  
 6040  
 6050  
 6060  
 6070  
 6080  
 6090  
 6100  
 6110  
 6120  
 6130  
 6140  
 6150  
 6160  
 6170  
 6180  
 6190  
 6200  
 6210  
 6220  
 6230  
 6240  
 6250  
 6260  
 6270  
 6280  
 6290  
 6300  
 6310  
 6320  
 6330  
 6340  
 6350  
 6360  
 6370  
 6380  
 6390  
 6400  
 6410  
 6420  
 6430  
 6440  
 6450  
 6460  
 6470  
 6480  
 6490  
 6500  
 6510  
 6520  
 6530  
 6540  
 6550  
 6560  
 6570  
 6580  
 6590  
 6600  
 6610  
 6620  
 6630  
 6640  
 6650  
 6660  
 6670  
 6680  
 6690  
 6700  
 6710  
 6720  
 6730  
 6740  
 6750  
 6760  
 6770  
 6780  
 6790  
 6800  
 6810  
 6820  
 6830  
 6840  
 6850  
 6860  
 6870  
 6880  
 6890  
 6900  
 6910  
 6920  
 6930  
 6940  
 6950  
 6960  
 6970  
 6980  
 6990  
 7000  
 7010  
 7020  
 7030  
 7040  
 7050  
 7060  
 7070  
 7080  
 7090  
 7100  
 7110  
 7120  
 7130  
 7140  
 7150  
 7160  
 7170  
 7180  
 7190  
 7200  
 7210  
 7220  
 7230  
 7240  
 7250  
 7260  
 7270  
 7280  
 7290  
 7300  
 7310  
 7320  
 7330  
 7340  
 7350  
 7360  
 7370  
 7380  
 7390  
 7400  
 7410  
 7420  
 7430  
 7440  
 7450  
 7460  
 7470  
 7480  
 7490  
 7500  
 7510  
 7520  
 7530  
 7540  
 7550  
 7560  
 7570  
 7580  
 7590  
 7600  
 7610  
 7620  
 7630  
 7640  
 7650  
 7660  
 7670  
 7680  
 7690  
 7700  
 7710  
 7720  
 7730  
 7740  
 7750  
 7760  
 7770  
 7780  
 7790  
 7800  
 7810  
 7820  
 7830  
 7840  
 7850  
 7860  
 7870  
 7880  
 7890  
 7900  
 7910  
 7920  
 7930  
 7940  
 7950  
 7960  
 7970  
 7980  
 7990  
 8000  
 8010  
 8020  
 8030  
 8040  
 8050  
 8060  
 8070  
 8080  
 8090  
 8100  
 8110  
 8120  
 8130  
 8140  
 8150  
 8160  
 8170  
 8180  
 8190  
 8200  
 8210  
 8220  
 8230  
 8240  
 8250  
 8260  
 8270  
 8280  
 8290  
 8300  
 8310  
 8320  
 8330  
 8340  
 8350  
 8360  
 8370  
 8380  
 8390  
 8400  
 8410  
 8420  
 8430  
 8440  
 8450  
 8460  
 8470  
 8480  
 8490  
 8500  
 8510  
 8520  
 8530  
 8540  
 8550  
 8560  
 8570  
 8580  
 8590  
 8600  
 8610  
 8620  
 8630  
 8640  
 8650  
 8660  
 8670  
 8680  
 8690  
 8700  
 8710  
 8720  
 8730  
 8740  
 8750  
 8760  
 8770  
 8780  
 8790  
 8800  
 8810  
 8820  
 8830  
 8840  
 8850  
 8860  
 8870  
 8880  
 8890  
 8900  
 8910  
 8920  
 8930  
 8940  
 8950  
 8960  
 8970  
 8980  
 8990  
 9000  
 9010  
 9020  
 9030  
 9040  
 9050  
 9060  
 9070  
 9080  
 9090  
 9100  
 9110  
 9120  
 9130  
 9140  
 9150  
 9160  
 9170  
 9180  
 9190  
 9200  
 9210  
 9220  
 9230  
 9240  
 9250  
 9260  
 9270  
 9280  
 9290  
 9300  
 9310  
 9320  
 9330  
 9340  
 9350  
 9360  
 9370  
 9380  
 9390  
 9400  
 9410  
 9420  
 9430  
 9440  
 9450  
 9460  
 9470  
 9480  
 9490  
 9500  
 9510  
 9520  
 9530  
 9540  
 9550  
 9560  
 9570  
 9580  
 9590  
 9600  
 9610  
 9620  
 9630  
 9640  
 9650  
 9660  
 9670  
 9680  
 9690  
 9700  
 9710  
 9720  
 9730  
 9740  
 9750  
 9760  
 9770  
 9780  
 9790  
 9800  
 9810  
 9820  
 9830  
 9840  
 9850  
 9860  
 9870  
 9880  
 9890  
 9900  
 9910  
 9920  
 9930  
 9940  
 9950  
 9960  
 9970  
 9980  
 9990  
 10000  
 10010  
 10020  
 10030  
 10040  
 10050  
 10060  
 10070  
 10080  
 10090  
 10100  
 10110  
 10120  
 10130  
 10140  
 10150  
 10160  
 10170  
 10180  
 10190  
 10200  
 10210  
 10220  
 10230  
 10240  
 10250  
 10260  
 10270  
 10280  
 10290  
 10300  
 10310  
 10320  
 10330  
 10340  
 10350  
 10360  
 10370  
 10380  
 10390  
 10400  
 10410  
 10420  
 10430  
 10440  
 10450  
 10460  
 10470  
 10480  
 10490  
 10500  
 10510  
 10520  
 10530  
 10540  
 10550  
 10560  
 10570  
 10580  
 10590  
 10600  
 10610  
 10620  
 10630  
 10640  
 10650  
 10660  
 10670  
 10680  
 10690  
 10700  
 10710  
 10720  
 10730  
 10740  
 10750  
 10760  
 10770  
 10780  
 10790  
 10800  
 10810  
 10820  
 10830  
 10840  
 10850  
 10860  
 10870  
 10880  
 10890  
 10900  
 10910  
 10920  
 10930  
 10940  
 10950  
 10960  
 10970  
 10980  
 10990  
 11000  
 11010  
 11020  
 11030  
 11040  
 11050  
 11060  
 11070  
 11080  
 11090  
 11100  
 11110  
 11120  
 11130  
 11140  
 11150  
 11160  
 11170  
 11180  
 11190  
 11200  
 11210  
 11220  
 11230  
 11240  
 11250  
 11260  
 11270  
 11280  
 11290  
 11300  
 11310  
 11320  
 11330  
 11340  
 11350  
 11360  
 11370  
 11380  
 11390  
 11400  
 11410  
 11420  
 11430  
 11440  
 11450  
 11460  
 11470  
 11480  
 11490  
 11500  
 11510  
 11520  
 11530  
 11540  
 11550  
 11560  
 11570  
 11580  
 11590  
 11600  
 11610  
 11620  
 11630  
 11640  
 11650  
 11660  
 11670  
 11680  
 11690  
 11700  
 11710  
 11720  
 11730  
 11740  
 11750  
 11760  
 11770  
 11780  
 11790  
 11800  
 11810  
 11820  
 11830  
 11840  
 11850  
 11860  
 11870  
 11880  
 11890  
 11900  
 11910  
 11920  
 11930  
 11940  
 11950  
 11960  
 11970  
 11980  
 11990  
 12000  
 12010  
 12020  
 12030  
 12040  
 12050  
 12060  
 12070  
 12080  
 12090  
 12100  
 12110  
 12120  
 12130  
 12140  
 12150  
 12160  
 12170  
 12180  
 12190  
 12200  
 12210  
 12220  
 12230  
 12240  
 12250  
 12260  
 12270  
 12280  
 12290  
 12300  
 12310  
 12320  
 12330  
 12340  
 12350  
 12360  
 12370  
 12380  
 12390  
 12400  
 12410  
 12420  
 12430  
 12440  
 12450  
 12460  
 12470  
 12480  
 12490  
 12500  
 12510  
 12520  
 12530  
 12540  
 12550  
 12560  
 12570  
 12580  
 12590  
 12600  
 12610  
 12620  
 12630  
 12640  
 12650  
 12660  
 12670  
 12680  
 12690  
 12700  
 12710  
 12720  
 12730  
 12740  
 12750  
 12760  
 12770  
 1278

CONFIDENTIAL

SUMX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARIES AS OF 20 FEB 68

STANDARDUS 010C10, NT# 1 HISTOGRAM OF TRAINING BEFORE R.V. LOCATED IN WORDS 9,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 10,

1520  
1510  
1480  
1450  
1420  
1390  
1360  
1330  
1300  
1270  
1240  
1210  
1180  
1150  
1120  
1090  
1060  
1030  
1000  
970  
940  
910  
880  
850  
820  
790  
760  
730  
700  
670  
640  
610  
580  
550  
520  
490  
460  
430  
400  
370  
340  
310  
280  
250  
220  
190  
160  
130  
100  
70  
40  
10  
INTERVAL 1210, 6789C  
10

RECEIPT OF FORMAL M16 TRAINING BEFORE VIETNAM			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No Response	26	—
2	Yes	1518	76%
3	No	477	24%
TOTALS		2021	100% (1995)

Question 3a: Receipt of M16 Training BEFORE Vietnam

CONFIDENTIAL

CONFIDENTIAL

STANDARD OUTPUT -- VERSION M4  
M16 STATISTICAL SUPPORTS AS OF 201104

STANDARD OUTPUT, M16 1 HISTOGRAM OF TRAINING IN M.V. LOCATED IN WORDS 10,  
M16 ASSOCIATED MIGHTING FACTORS LOCATED IN WORDS 0,

1370  
1274  
1240  
1222  
1176  
1170  
1144  
1118  
1092  
1066  
1060  
1014  
980  
962  
936  
910  
884  
858  
832  
806  
780  
754  
728  
702  
676  
650  
624  
598  
572  
546  
520  
494  
468  
442  
416  
390  
364  
338  
312  
286  
260  
234  
208  
182  
156  
130  
104  
78  
52  
26  
0  
INTERVAL 123456789C  
10

RECEIPT OF FORMAL M16 TRAINING IN VIETNAM			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No Response	222	-
2	Yes	1292	72%
3	No	506	28%
TOTALS		2020	100% (1798)

Question 3b: Receipt of M16 Training IN Vietnam

CONFIDENTIAL

CONFIDENTIAL

STATISTICAL SUMMARY AS OF 200 HOURS

STANDARD PLUNCIO, MIB 1 HISTOGRAM OF MECH. TRAIN. BEFORE VN LOCATED IN WORDS 110  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0.

HOURS MECHANICAL TRAINING RECEIVED - BEFORE VIETNAM		
INTERVAL	HOURS	PERCENTAGE
1	None	32%
2	1	7%
3	2	12%
4	3	4%
5	4	10%
6	5	5%
7	6	3%
8	7	1%
9	8	9%
10	9	< 1%
11	10	5%
12-31	11-30	9%
32-81	31-80	4%
82-100	No Response	-
TOTALS		100% (1831)

$\bar{X}(\text{ave}) = 5.2$  hours mechanical tng

$\sigma(\text{std dev}) = 8.2$  hours

Question 4A: Hours mechanical training received BEFORE Vietnam

INTERVAL 10 20 30 40 50 60 70 80 90 100 110  
 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1213 1214 1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229 1230 1231 1232 1233 1234 1235 1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1260 1261 1262 1263 1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314 1315 1316 1317 1318 1319 1320 1321 1322 1323 1324 1325 1326 1327 1328 1329 1330 1331 1332 1333 1334 1335 1336 1337 1338 1339 1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350 1351 1352 1353 1354 1355 1356 1357 1358 1359 1360 1361 1362 1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1374 1375 1376 1377 1378 1379 1380 1381 1382 1383 1384 1385 1386 1387 1388 1389 1390 1391 1392 1393 1394 1395 1396 1397 1398 1399 1400 1401 1402 1403 1404 1405 1406 1407 1408 1409 1410 1411 1412 1413 1414 1415 1416 1417 1418 1419 1420 1421 1422 1423 1424 1425 1426 1427 1428 1429 1430 1431 1432 1433 1434 1435 1436 1437 1438 1439 1440 1441 1442 1443 1444 1445 1446 1447 1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459 1460 1461 1462 1463 1464 1465 1466 1467 1468 1469 1470 1471 1472 1473 1474 1475 1476 1477 1478 1479 1480 1481 1482 1483 1484 1485 1486 1487 1488 1489 1490 1491 1492 1493 1494 1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514 1515 1516 1517 1518 1519 1520 1521 1522 1523 1524 1525 1526 1527 1528 1529 1530 1531 1532 1533 1534 1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545 1546 1547 1548 1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567 1568 1569 1570 1571 1572 1573 1574 1575 1576 1577 1578 1579 1580 1581 1582 1583 1584 1585 1586 1587 1588 1589 1590 1591 1592 1593 1594 1595 1596 1597 1598 1599 1600 1601 1602 1603 1604 1605 1606 1607 1608 1609 1610 1611 1612 1613 1614 1615 1616 1617 1618 1619 1620 1621 1622 1623 1624 1625 1626 1627 1628 1629 1630 1631 1632 1633 1634 1635 1636 1637 1638 1639 1640 1641 1642 1643 1644 1645 1646 1647 1648 1649 1650 1651 1652 1653 1654 1655 1656 1657 1658 1659 1660 1661 1662 1663 1664 1665 1666 1667 1668 1669 1670 1671 1672 1673 1674 1675 1676 1677 1678 1679 1680 1681 1682 1683 1684 1685 1686 1687 1688 1689 1690 1691 1692 1693 1694 1695 1696 1697 1698 1699 1700 1701 1702 1703 1704 1705 1706 1707 1708 1709 1710 1711 1712 1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1727 1728 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743 1744 1745 1746 1747 1748 1749 1750 1751 1752 1753 1754 1755 1756 1757 1758 1759 1760 1761 1762 1763 1764 1765 1766 1767 1768 1769 1770 1771 1772 1773 1774 1775 1776 1777 1778 1779 1780 1781 1782 1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801 1802 1803 1804 1805 1806 1807 1808 1809 1810 1811 1812 1813 1814 1815 1816 1817 1818 1819 1820 1821 1822 1823 1824 1825 1826 1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1846 1847 1848 1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 25



**C**

1. THE HISTORY OF THE UNITED STATES

129

**ANS**

222

**H. FRA**

AM 01

# SH

NY 4

777 76176

**Abstract.**

.

---

10

HOURS MECHANICAL TRAINING RECEIVED IN VIETNAM			
INTERVAL	HOURS	NUMBER	PERCENTAGE
1	None	690	44%
2	1	318	20%
3	2	241	15%
4	3	56	4%
5	4	81	5%
6	5	31	2%
7	6	18	1%
8	7	3	< 1%
9	8	53	3%
10	9	0	-
11	10	27	1%
12-21	11-20	38	2%
22-88	21-89	24	2%
89-96	No Response	441	-
TOTALS		2021	100% (100%)

 $\bar{X} = 2.1 \text{ hours}$ 

9 - 40 hours

**Question 4a: Hours Mechanical Training in VW**

[illegible]

# FINLEY

475

CONFIDENTIAL

STANDARDS PLUGS, WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS, 0.

NOTE: This table is a consolidation of all seven histograms on Question 5.

ITEM	DO YOU HAVE CLEANING MATERIALS?			TOTAL MEN RESPONDING
	INTERVAL 1 (NO RESPONSE)	INTERVAL 2 (YES)	INTERVAL 3 (NO)	
Cleaning Rod	103	97%	3%	1916
LSA Lubricant	103	91%	9%	1918
Chamber Brush	103	93%	7%	1918
Bore Brush	103	94%	6%	1918
Pipe Cleaners	104	69%	31%	1917
Patches	104	91%	9%	1917
Bore Cleaner	144	63%	37%	1877

Question 5a: Have cleaning rod (histograms for 5b-g available on request)

CONFIDENTIAL

INTERVAL 1 114567894  
10

CONFIDENTIAL

STATISTICAL SUMMARY -- VERSION 44  
M16 STATISTICAL SUMMARIES AS OF 20 FEB 68

STANDARD ILLUSTRATION, M16 1. HISTOGRAM OF CLEANING ROD CARRIED LOCATED IN WORDS 24,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 1, 0.

NOTE: This table is a consolidation of all seven histograms on question 6a through 8.

ITEM	DO YOU CARRY CLEANING MATERIALS ON OPERATIONS?			TOTAL MEN RESPONDING
	INTERVAL 1 (NO RESPONSE)	INTERVAL 2 (YES)	INTERVAL 3 (NO)	
Cleaning Rod	126	85% (1614)	15% (281)	100% 1895
LSA Lubricant	126	75% (1416)	25% (479)	100% 1895
Chamber Brush	126	70% (1332)	30% (563)	100% 1895
Bore Brush	126	70% (1334)	30% (561)	100% 1895
Pipe Cleaners	127	36% (689)	64% (1205)	100% 1894
Patches	126	71% (1348)	29% (546)	100% 1894
Bore Cleaner	161	34% (651)	64% (1209)	100% 1860

Question 6a: Carry Cleaning Rod (histograms for 6b-g available on request)

INTERVAL 1234567890  
10

CONFIDENTIAL



**CONFIDENTIAL**

SUMX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARIES AS OF 28FEB60

STANDARD: ULCIO; N# 1 HISTOGRAM OF NEW BUTTER EQUIPPED LOCATED IN WORDS 31,  
WITH ASSULATED WEIGHTING FACTORS LOCATED IN WORDS , 0,

IS YOUR M16 EQUIPPED W/NEW BUFFER?			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No	315	16%
2-99	Yes	1706	84%
TOTALS		2021	100%

**Question 7a:** Presence of new buffer, and number of weeks it has been installed.

[illegible]

**CONFIDENTIAL**

CONFIDENTIAL

M16 STATISTICAL SUMMARIES AS OF 20 FEB 68

STANDARD DUDLO, M16 1 HISTOGRAM OF C.P.C. EQUIPPED LOCATED IN WORDS 32+  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS , 0,

IS YOUR M16 EQUIPPED WITH A CHROED CHAMBER?			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No	1385	69%
2-99	Yes	636	31%
TOTALS		2021	100%

Question 7b: Presence of chromed chamber, and  
number of weeks in possession.

INTERVAL 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CONFIDENTIAL

CONFIDENTIAL

SUNX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARY AS OF 20FEB68

STANUARD 810C10, NT# 3 HISTOGRAM OF TIME SINCE ZERO #2 LOCATED IN WORDS 33,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

150  
157  
164  
161  
136  
135  
129  
126  
123  
120  
117  
114  
111  
108  
105  
102  
99  
96  
93  
90  
87  
84  
81  
78  
75  
72  
69  
66  
63  
60  
57  
54  
51  
48  
45  
42  
39  
36  
33  
30  
27  
24  
21  
18  
15  
12  
9  
6  
3  
INTERVAL

ZEROING HISTORY				
INTERVAL	RESPONSE	MANEUVER BNS	ALL OTHERS	THEATER
1	No. Response	84	97	181
2-13	1 Month	60% (573)	55% (485)	58% (1058)
14-99	3 Months	28% (267)	32% (334)	33% (601)
100	Never	12% (112)	8% (68)	10% (180)
TOTALS	Responding	100% (952)	100% (887)	100% (1839)
	Questioned	1036	984	2020

$\bar{X}$  (ava. time. since zeroing): 11.6 weeks 16.3 weeks 13.9 weeks  
(std. dev) : 13.7 weeks 17.9 weeks 16.0 weeks

Question 81. Zeroing history--maneuver bns (histograms for all others  
and theater available on request)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863  
864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917  
918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971  
972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000

CONFIDENTIAL

**CONFIDENTIAL**

SUMX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARIES AS OF 28FEB68

STANDARDX DLUCIO, NY# 1 HISTOGRAM OF TRACER ANNO CARRIED LOCATED IN WORDS 35,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS , 0.

NOTE: This table is a consolidation of all three histograms on question 9.

ROUNDS OF AMMUNITION CARRIED ON OPERATIONS				
CHARACTERISTICS	BALL	TRACER	TOTAL	
$\bar{X}$ (Ave. Number)	224.3	65.1		297.8
$\sigma$ (Std Dev)	145.2	87.0		180.7

**Question 9: Total rounds tracer carried (histograms for ball and total rounds available on request)**

11-11-67



CONFIDENTIAL

SUMMARY OUTPUT --- VERSION M4  
M4 STATISTICAL SUMMARY AS OF 28FEB68

STANDARD 80010, M4 1 HISTOGRAM OF LUBRICATION OF AMMO LOCATED IN WORDS 36,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

1500

1470

1440

1410

1380

1350

1320

1290

1260

1230

1200

1170

1140

1110

1080

1050

1020

990

960

930

900

870

840

810

780

750

720

690

660

630

600

570

540

510

480

450

420

390

360

330

300

270

240

210

180

150

120

90

60

30

INTERVAL 1234567890

DO YOU LUBRICATE AMMUNITION?		
INTERVAL	RESPONSE	PERCENTAGE
1	No Response	98
2	Yes	450
3	No	1472
TOTALS		2020
		100% (1922)

Question 10: Lubrication of Ammunition

CONFIDENTIAL

CONFIDENTIAL

M16 STATISTICAL SUMMARY AS OF 2011000

2. JOURNALING INSTRUCTIONS, M16 1. HISTOGRAM OF MAG. CLEAN. INST. LOCATED IN WORDS 39,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS, 0,

NOTE: This table is a consolidation of all three histograms in question 11.

HAS INSTRUCTION ON CARE & CLEANING BEEN RECEIVED?			
INTERVAL	RESPONSE	M16	MAGAZINE
1	No	6% ( 97)	11% ( 171)
2-99	Yes	94% (1580)	89% (1414)
100	No Response	344	436
TOTALS:	Responding	100% (1677)	100% (1596)
	Questioned	2021	2021
$\bar{X}$ (Ave Time Since Inst.)		16.5 Weeks	15.9 Weeks
$\sigma$ (Std Dev)		16.1 Weeks	16.1 Weeks

Question 11(c). Weeks since receipt of magazine cleaning instruction  
(histograms for M16 and ammunition cleaning available  
on request)

INTERVAL 10 20 30 40 50 60 70 80 90 100

CONFIDENTIAL

CONFIDENTIAL

STATISTICAL SUMMARY -- VERSION M6  
M16 STATISTICAL SUMMARIES AS OF 201 ED060

STANDARD: 06010, NEW 1 HISTOGRAM OF FAILURE TO LOCK LOCATED IN WORDS 40,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

NUMBER  
1150  
1127  
1104  
1081  
1058  
1035  
1012  
989  
966  
943  
920  
897  
874  
851  
828  
805  
782  
759  
736  
713  
690  
667  
644  
621  
598  
575  
552  
529  
506  
483  
460  
437  
414  
391  
368  
345  
322  
299  
276  
253  
230  
207  
184  
161  
138  
115  
92  
69  
46  
23  
0

NUMBER OF FAILURES TO LOCK			
INTERVAL	NUMBER OF FAILURES	NUMBER	PERCENTAGE
1	None	1142	58%
2-6	1-5	519	26%
7-11	6-10	125	6%
12-88	Over 10	56	3%
89	No Response	44	-
90-100	Some - No Number Given	135	07%
TOTAL		2021	100% (1977)

$\bar{X}_2$  (average) = 5.3 failures/men reporting failures  
 $\sigma_2$  (std dev) = 6.3 failures

$\bar{X}_1$  (ave) = 2.0 failures/all men  
 $\sigma_1$  (std dev) = 4.6 failures

Question 12: Number of failures to lock.

INTERVAL  
10  
20  
30  
40  
50  
60  
70  
80  
90  
100  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863  
864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917  
918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971  
972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000

CONFIDENTIAL

CONFIDENTIAL

SUMX OUTPUT -- VERSION M4  
M10 STATISTICAL SUMMARY AS OF 20FEB68

4 STANDARD ULOC10; NT# 1 HISTOGRAM OF BUILT ASSIST LOCATED IN WORDS 41;  
4111 ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0;

1050  
1029  
1000  
987  
966  
945  
924  
903  
882  
861  
840  
819  
798  
777  
756  
735  
714  
693  
672  
651  
630  
609  
588  
567  
546  
525  
504  
483  
462  
441  
420  
399  
378  
357  
336  
315  
294  
273  
252  
231  
210  
189  
168  
147  
126  
105  
84  
63  
42  
21  
0  
INTERVAL 1214507092  
10

HAVE YOU USED BOLT ASSIST?		
INTERVAL	RESPONSE	PERCENTAGE
1	No Response	93
2	Yes	48%
3	No	52%
TOTALS		2015 100% (1922)

Question 13: Use of bolt assist.

CONFIDENTIAL

CONFIDENTIAL

STATISTICAL SUMMARY AS OF 20FEB68

STANDARD HUCIO, MTB 1 HISTOGRAM OF BOLT ASSIST WORKED LOCATED IN WORDS 42.  
WITH ASSOCIATED WEIGHING FACTORS LOCATED IN WORDS 0.

1100  
1070  
1050  
1030  
1010  
990  
970  
950  
930  
910  
890  
870  
850  
830  
810  
790  
770  
750  
730  
710  
690  
670  
650  
630  
610  
590  
570  
550  
530  
510  
490  
470  
450  
430  
410  
390  
370  
350  
330  
310  
290  
270  
250  
230  
210  
190  
170  
150  
130  
110  
90  
70  
50  
30  
10

DID BOLT ASSIST CLEAR PROBLEM?		
INTERVAL	RESPONSE	PERCENTAGE
1	Never	11%
2-88,90-99	Sometimes	43%
100	Always	46%
89	No Response	-
TOTALS	2021	100% (941)

$\bar{X}$  (average) = 68.9% of time it cleared problem  
 $\sigma$  (std dev) = 39.1%

Question 13: Percentage of the time that use of bolt assist cleared problem.

INTERVAL

110  
100  
90  
80  
70  
60  
50  
40  
30  
20  
10  
0

CONFIDENTIAL



CONFIDENTIAL

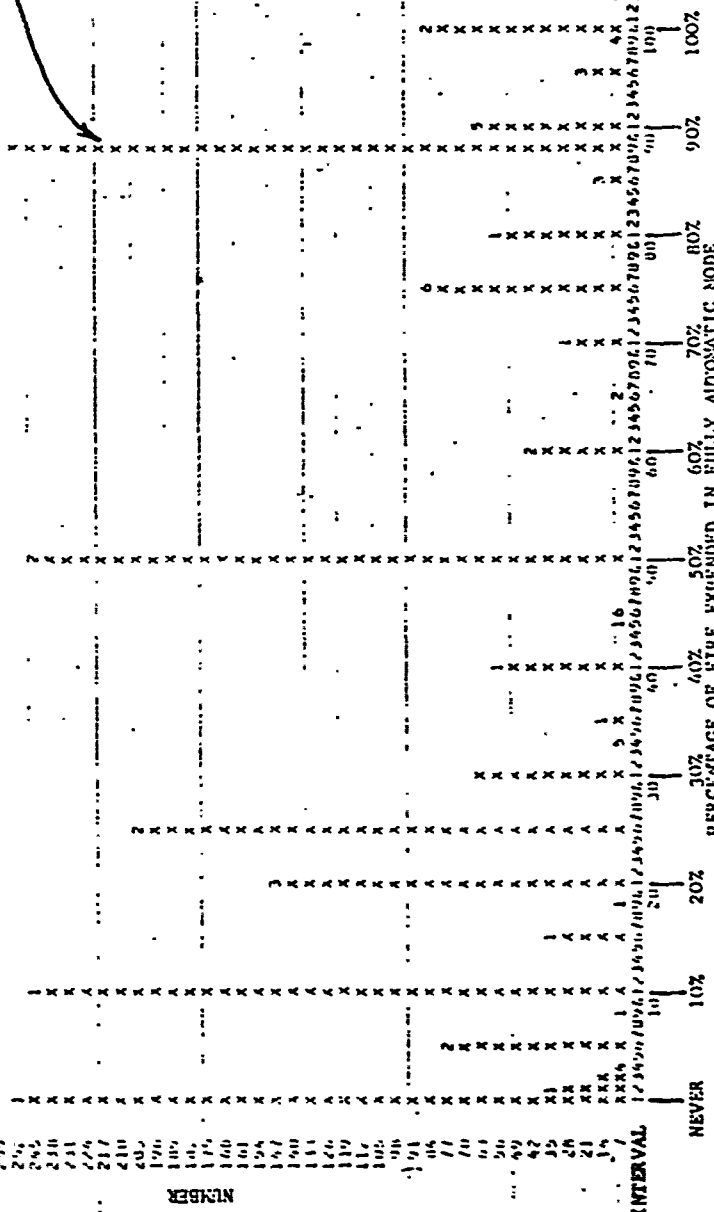
DATA INPUT -- VERSION 44  
M16 STATISTICAL SUMMARY AS OF 20 FEB 68

STANDARD DEVIATION: M16 1. DISTRICTION OF FULLY AUTOMATIC FIPL LOCATED IN WORDS 48,  
WITH ASSOCIATED WEIGHING FACTORS LOCATED IN WORDS 1, 0,

Question 13: Percentage of Fire Expended in Fully Automatic Mode

$\bar{X}$  (avn) = 33.9%  
 $\sigma$  (std dev) = 30.4%

No Response



CONFIDENTIAL

# CONFIDENTIAL

STATISTICAL SUMMARY -- VERSION M4  
M16 STATISTICAL SUMMARY AS IN ZHTEH00

STANDARD DEVIATION, N/A 1 HISTOGRAM OF SHIRT BURST FINE LOCATED IN WORDS 49,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

Question 16: Percentage of Automatic Fire Expended in Short Bursts

$\bar{X}$  (ave) = 60.2%  
 $\sigma$  (std dev) = 32.9%

No Response

NUMBER

INTERVAL	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1
26	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1
31	1	1	1	1	1	1	1	1	1	1
32	1	1	1	1	1	1	1	1	1	1
33	1	1	1	1	1	1	1	1	1	1
34	1	1	1	1	1	1	1	1	1	1
35	1	1	1	1	1	1	1	1	1	1
36	1	1	1	1	1	1	1	1	1	1
37	1	1	1	1	1	1	1	1	1	1
38	1	1	1	1	1	1	1	1	1	1
39	1	1	1	1	1	1	1	1	1	1
40	1	1	1	1	1	1	1	1	1	1
41	1	1	1	1	1	1	1	1	1	1
42	1	1	1	1	1	1	1	1	1	1
43	1	1	1	1	1	1	1	1	1	1
44	1	1	1	1	1	1	1	1	1	1
45	1	1	1	1	1	1	1	1	1	1
46	1	1	1	1	1	1	1	1	1	1
47	1	1	1	1	1	1	1	1	1	1
48	1	1	1	1	1	1	1	1	1	1
49	1	1	1	1	1	1	1	1	1	1
50	1	1	1	1	1	1	1	1	1	1
51	1	1	1	1	1	1	1	1	1	1
52	1	1	1	1	1	1	1	1	1	1
53	1	1	1	1	1	1	1	1	1	1
54	1	1	1	1	1	1	1	1	1	1
55	1	1	1	1	1	1	1	1	1	1
56	1	1	1	1	1	1	1	1	1	1
57	1	1	1	1	1	1	1	1	1	1
58	1	1	1	1	1	1	1	1	1	1
59	1	1	1	1	1	1	1	1	1	1
60	1	1	1	1	1	1	1	1	1	1
61	1	1	1	1	1	1	1	1	1	1
62	1	1	1	1	1	1	1	1	1	1
63	1	1	1	1	1	1	1	1	1	1
64	1	1	1	1	1	1	1	1	1	1
65	1	1	1	1	1	1	1	1	1	1
66	1	1	1	1	1	1	1	1	1	1
67	1	1	1	1	1	1	1	1	1	1
68	1	1	1	1	1	1	1	1	1	1
69	1	1	1	1	1	1	1	1	1	1
70	1	1	1	1	1	1	1	1	1	1
71	1	1	1	1	1	1	1	1	1	1
72	1	1	1	1	1	1	1	1	1	1
73	1	1	1	1	1	1	1	1	1	1
74	1	1	1	1	1	1	1	1	1	1
75	1	1	1	1	1	1	1	1	1	1
76	1	1	1	1	1	1	1	1	1	1
77	1	1	1	1	1	1	1	1	1	1
78	1	1	1	1	1	1	1	1	1	1
79	1	1	1	1	1	1	1	1	1	1
80	1	1	1	1	1	1	1	1	1	1
81	1	1	1	1	1	1	1	1	1	1
82	1	1	1	1	1	1	1	1	1	1
83	1	1	1	1	1	1	1	1	1	1
84	1	1	1	1	1	1	1	1	1	1
85	1	1	1	1	1	1	1	1	1	1
86	1	1	1	1	1	1	1	1	1	1
87	1	1	1	1	1	1	1	1	1	1
88	1	1	1	1	1	1	1	1	1	1
89	1	1	1	1	1	1	1	1	1	1
90	1	1	1	1	1	1	1	1	1	1
91	1	1	1	1	1	1	1	1	1	1
92	1	1	1	1	1	1	1	1	1	1
93	1	1	1	1	1	1	1	1	1	1
94	1	1	1	1	1	1	1	1	1	1
95	1	1	1	1	1	1	1	1	1	1
96	1	1	1	1	1	1	1	1	1	1
97	1	1	1	1	1	1	1	1	1	1
98	1	1	1	1	1	1	1	1	1	1
99	1	1	1	1	1	1	1	1	1	1
100	1	1	1	1	1	1	1	1	1	1

100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%



SUMX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARY AS OF 20FEB68

STANDARD C BLOCIO,	NT# 1	HISTOGRAM OF MOST ROUNDS FIRED	LOCATED IN WORDS
WITH ASSOCIATED WEIGHTING FACTORS	LOCATED IN WORDS	0.	0.

NOTE: This table is a consolidation of all three histograms on question 17.

LARGEST NUMBER OF ROUNDS EXPENDED IN A SINGLE DAY OF COMBAT				
CENTRAL TENDENCY	MANEUVER BNS	ALL OTHERS	THEATER	
$\bar{X}$ (Average No. Expended)	293.3	327.0	307.7	
$\sigma$ (Standard Deviation of Distribution)	334.2	357.5	344.7	

Question 17: Largest number of rounds expended in a single day of combat—theater (histograms for maneuver) DNS & all others available on request

[illegible]

70

CONFIDENTIAL

SUMX OUTPUT -- VERSION MA  
M16 STATISTICAL SUMMARIES AS OF 20FEB68

STANDARD 110C10. M16 1 HISTOGRAM OF CARD ISSUED LOCATED IN WORDS 51.  
WITH ASSOCIATED HEIGHTING FACTORS LOCATED IN WORDS 0.

1150 8  
1121 X  
1104 X  
1081 X  
1058 X  
1035 X  
1012 X  
989 X  
966 X  
943 X  
920 X  
897 X  
874 X  
851 X  
828 X  
805 X  
782 X  
759 X  
736 X  
713 X  
690 X  
667 X  
644 X  
621 X  
598 X  
575 X  
552 X  
529 X  
506 X  
483 X  
460 X  
437 X  
414 X  
391 X  
368 X  
345 X  
322 X  
299 X  
276 X  
253 X  
230 X  
207 X  
184 X  
161 X  
138 X  
115 X  
92 X  
69 X  
46 X  
23 X  
INTERVAL 1/14567892  
10

NOTE: This table is a consolidation of two histograms on question 18.

M16 CARE & CLEANING INSTRUCTION CARD			
INTERVAL	RESPONSE	WAS CARD ISSUED?	IF ISSUED, DO YOU STILL HAVE IT?
1	No Response	-	-
2	Yes	58% (1112)	51% ( 547)
3	No	42% ( 797)	49% ( 535)
TOTALS:	Responding	100% (1909)	100% (1082)
	Questioned	2019	2018

Question 18a: Was instruction card issued? (histogram for presence of card available on request)

CONFIDENTIAL

CONFIDENTIAL

STATISTICAL SUMMARY -- VERSION 14  
M16 STATISTICAL SUMMARY AS OF 20F0608

LOCATED IN WORDS 53.

HISTOGRAM OF TEST FIRING  
FACTORS LOCATED IN WORDS 0.

STANDARD WLOCIO,  
WITH ASSOCIATED WEIGHTING

1400 8

1500 x

1516 x

1506 x

1472 x

1440 x

1400 x

1376 x

1344 x

1312 x

1280 x

1240 x

1216 x

1184 x

1152 x

1120 x

1088 x

1056 x

1024 x

992 x

960 x

928 x

896 x

864 x

832 x

800 x

768 x

736 x

704 x

672 x

640 x

608 x

576 x

544 x

512 x

480 x

448 x

416 x

384 x

352 x

320 x

288 x

256 x

224 x

192 x

160 x

128 x

96 x

64 x

32 x

16 x

8 x

4 x

2 x

1 x

0 x

INTERVAL 1234567890

10

DOES YOUR UNIT TEST FIRE INDIVIDUAL WEAPONS?		
INTERVAL	RESPONSE	PERCENTAGE
1	No Response	110
2	YES	1576
3	NO	335
TOTALS		2021
		100% (1911)

Question 19: Does your unit test fire individual weapons?

CONFIDENTIAL

CONFIDENTIAL

SUNX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARY AS OF 20FEB68

STANDARD UCUCIO, NT# 1 HISTOGRAM OF TEST SCHEDULE  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS, 0, LOCATED IN WORDS 54,

1250  
1225  
1200  
1175  
1150  
1125  
1100  
1075  
1050  
1025  
1000  
975  
950  
925  
900  
875  
850  
825  
800  
775  
750  
725  
700  
675  
650  
625  
600  
575  
550  
525  
500  
475  
450  
425  
400  
375  
350  
325  
300  
275  
250  
225  
200  
175  
150  
125  
100  
75  
50  
25  
INTERVAL

1250  
1225  
1200  
1175  
1150  
1125  
1100  
1075  
1050  
1025  
1000  
975  
950  
925  
900  
875  
850  
825  
800  
775  
750  
725  
700  
675  
650  
625  
600  
575  
550  
525  
500  
475  
450  
425  
400  
375  
350  
325  
300  
275  
250  
225  
200  
175  
150  
125  
100  
75  
50  
25  
INTERVAL

IF TEST FIRING IS CONDUCTED, IS THERE A SCHEDULE?			
INTERVAL	SCHEDULE	NUMBER	PERCENTAGE
1	None	1236	73%
2	At First Light	13	1%
3	Before Moving Out	70	4%
4	Daily	73	4%
5	Every Second Day	14	1%
6	Weekly	67	4%
7	Other	215	13%
10	No Response	333	-
TOTALS		2021	100% (1688)

Question 20: If you test fire, what is the test firing schedule?

CONFIDENTIAL

CONFIDENTIAL

SUNX OUTPUT -- VERSION M6  
M16 STATISTICAL SUMMARIES AS OF 28FEB68

LOCATED IN WORDS 55

M16 HISTOGRAM OF CLEANING OF M16  
FACTORS LOCATED IN WORDS 0

STANDARD DEVIATION

M16 ASSOCIATED WEIGHTING FACTORS

800 5

794 4

788 3

782 2

776 1

770 0

764 0

758 0

752 0

746 0

740 0

734 0

728 0

722 0

716 0

710 0

704 0

698 0

692 0

686 0

678 0

670 0

662 0

654 0

646 0

638 0

630 0

622 0

614 0

606 0

598 0

590 0

582 0

574 0

566 0

560 0

554 0

548 0

542 0

536 0

530 0

524 0

518 0

512 0

506 0

500 0

494 0

488 0

482 0

476 0

470 0

464 0

458 0

452 0

446 0

440 0

434 0

428 0

422 0

416 0

410 0

404 0

398 0

392 0

386 0

380 0

374 0

368 0

362 0

356 0

350 0

344 0

338 0

332 0

326 0

320 0

314 0

308 0

302 0

296 0

290 0

284 0

278 0

272 0

266 0

260 0

254 0

248 0

242 0

236 0

230 0

224 0

218 0

212 0

206 0

200 0

194 0

188 0

182 0

176 0

170 0

164 0

158 0

152 0

146 0

140 0

134 0

128 0

122 0

116 0

110 0

104 0

98 0

92 0

86 0

80 0

74 0

68 0

62 0

56 0

50 0

44 0

38 0

32 0

26 0

20 0

14 0

8 0

2 0

0 0

INTERVAL 1.000000

10

M16 RIFLE CLEANING FREQUENCY			
INTERVAL	FREQUENCY	NUMBER	PERCENTAGE
1	Never	13	1%
2	Daily	789	54%
3	Every 2d Day	224	15%
4	Every 3d Day	174	12%
5	Weekly	204	14%
6	Every 2 Weeks	76	5%
7	No Response	551	-
TOTALS		2004	100% (1453)

$\bar{X}$  (ave) = 20.4 times per month  
 $\sigma$  (std dev) = 11.1 times per month

Question 21: Rifle cleaning frequency.

CONFIDENTIAL

CONFIDENTIAL

ML6 STATISTICAL SUMMARIES AS OF 29FEB68

ESTIMATED BLUCIO, NIF 1 HISTOGRAM OF MAGAZINE LOAD LOCATED IN WORDS 56,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS, 0,

NUMBER  
1250  
1225  
1200  
1175  
1150  
1125  
1100  
1075  
1050  
1025  
1000  
975  
950  
925  
900  
875  
850  
825  
800  
775  
750  
725  
700  
675  
650  
625  
600  
575  
550  
525  
500  
475  
450  
425  
400  
375  
350  
325  
300  
275  
250  
225  
200  
175  
150  
125  
100  
75  
50  
25  
0  
INTERVAL 12500 1096123050709123567096  
10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

NUMBER OF POUNDS LOADED IN MAGAZINES			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No Response	136	-
16	15	18	1%
17	16	10	1%
18	17	69	4%
19	18	1241	66%
20	19	316	17%
21	20	220	12%
TOTALS		2010	100% (1874)

$\bar{X}$  (ave) = 18.3 rounds  
 $\sigma$  (std dev) = 0.82 rounds

Question 22: Number of rounds loaded into magazines.

CONFIDENTIAL

CONFIDENTIAL

SUMX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARY AS OF 20FEB68

STANDARD C BLOC 10. MT# 2 HISTOGRAM OF ROUNDS FIRED/4MO #1 LOCATED IN WORDS 58.  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0.

NOTE: This table is a consolidation of all three histograms on question 23.

TOTAL ROUNDS FIRED W/IN LAST FOUR MONTHS 1/				
INTERVAL	ROUNDS	ALL OTHERS	MANEUVER BNS	THEATER
1	No Response	20	29	49
2	0-500	51% (407)	30% (190)	42% (597)
3	500-1000	21% (169)	24% (150)	22% (319)
4	1000-1500	11% (86)	16% (100)	13% (186)
5	1500-2000	5% (38)	10% (63)	7% (101)
6	Over 2000	12% (98)	21% (133)	16% (231)
10	No Response	84	70	154
TOTALS:	Responding	100% (798)	100% (636)	100% (1436)
	Questioned	902	735	1637

$\bar{X}$  (avg) : 750.0 rds 1039.7 rds 878.0 rds  
(std dev): 628.1 rds 675.7 rds 665.0 rds

1/ All men with less than four months in-country were excluded.

Question 23: Total number of rounds fired within the last four months -- all others  
(histograms for maneuver bns and theater available on request)

NUMBER  
2 X  
3 X  
4 X  
5 X  
6 X  
7 X  
8 X  
9 X  
10 X  
11 X  
12 X  
13 X  
14 X  
15 X  
16 X  
17 X  
18 X  
19 X  
20 X  
21 X  
22 X  
23 X  
24 X  
25 X  
26 X  
27 X  
28 X  
29 X  
30 X  
31 X  
32 X  
33 X  
34 X  
35 X  
36 X  
37 X  
38 X  
39 X  
40 X  
41 X  
42 X  
43 X  
44 X  
45 X  
46 X  
47 X  
48 X  
49 X  
50 X  
51 X  
52 X  
53 X  
54 X  
55 X  
56 X  
57 X  
58 X  
59 X  
60 X  
61 X  
62 X  
63 X  
64 X  
65 X  
66 X  
67 X  
68 X  
69 X  
70 X  
71 X  
72 X  
73 X  
74 X  
75 X  
76 X  
77 X  
78 X  
79 X  
80 X  
81 X  
82 X  
83 X  
84 X  
85 X  
86 X  
87 X  
88 X  
89 X  
90 X  
91 X  
92 X  
93 X  
94 X  
95 X  
96 X  
97 X  
98 X  
99 X  
100 X  
101 X  
102 X  
103 X  
104 X  
105 X  
106 X  
107 X  
108 X  
109 X  
110 X  
111 X  
112 X  
113 X  
114 X  
115 X  
116 X  
117 X  
118 X  
119 X  
120 X  
121 X  
122 X  
123 X  
124 X  
125 X  
126 X  
127 X  
128 X  
129 X  
130 X  
131 X  
132 X  
133 X  
134 X  
135 X  
136 X  
137 X  
138 X  
139 X  
140 X  
141 X  
142 X  
143 X  
144 X  
145 X  
146 X  
147 X  
148 X  
149 X  
150 X  
151 X  
152 X  
153 X  
154 X  
155 X  
156 X  
157 X  
158 X  
159 X  
160 X  
161 X  
162 X  
163 X  
164 X  
165 X  
166 X  
167 X  
168 X  
169 X  
170 X  
171 X  
172 X  
173 X  
174 X  
175 X  
176 X  
177 X  
178 X  
179 X  
180 X  
181 X  
182 X  
183 X  
184 X  
185 X  
186 X  
187 X  
188 X  
189 X  
190 X  
191 X  
192 X  
193 X  
194 X  
195 X  
196 X  
197 X  
198 X  
199 X  
200 X  
201 X  
202 X  
203 X  
204 X  
205 X  
206 X  
207 X  
208 X  
209 X  
210 X  
211 X  
212 X  
213 X  
214 X  
215 X  
216 X  
217 X  
218 X  
219 X  
220 X  
221 X  
222 X  
223 X  
224 X  
225 X  
226 X  
227 X  
228 X  
229 X  
230 X  
231 X  
232 X  
233 X  
234 X  
235 X  
236 X  
237 X  
238 X  
239 X  
240 X  
241 X  
242 X  
243 X  
244 X  
245 X  
246 X  
247 X  
248 X  
249 X  
250 X  
251 X  
252 X  
253 X  
254 X  
255 X  
256 X  
257 X  
258 X  
259 X  
260 X  
261 X  
262 X  
263 X  
264 X  
265 X  
266 X  
267 X  
268 X  
269 X  
270 X  
271 X  
272 X  
273 X  
274 X  
275 X  
276 X  
277 X  
278 X  
279 X  
280 X  
281 X  
282 X  
283 X  
284 X  
285 X  
286 X  
287 X  
288 X  
289 X  
290 X  
291 X  
292 X  
293 X  
294 X  
295 X  
296 X  
297 X  
298 X  
299 X  
300 X  
301 X  
302 X  
303 X  
304 X  
305 X  
306 X  
307 X  
308 X  
309 X  
310 X  
311 X  
312 X  
313 X  
314 X  
315 X  
316 X  
317 X  
318 X  
319 X  
320 X  
321 X  
322 X  
323 X  
324 X  
325 X  
326 X  
327 X  
328 X  
329 X  
330 X  
331 X  
332 X  
333 X  
334 X  
335 X  
336 X  
337 X  
338 X  
339 X  
340 X  
341 X  
342 X  
343 X  
344 X  
345 X  
346 X  
347 X  
348 X  
349 X  
350 X  
351 X  
352 X  
353 X  
354 X  
355 X  
356 X  
357 X  
358 X  
359 X  
360 X  
361 X  
362 X  
363 X  
364 X  
365 X  
366 X  
367 X  
368 X  
369 X  
370 X  
371 X  
372 X  
373 X  
374 X  
375 X  
376 X  
377 X  
378 X  
379 X  
380 X  
381 X  
382 X  
383 X  
384 X  
385 X  
386 X  
387 X  
388 X  
389 X  
390 X  
391 X  
392 X  
393 X  
394 X  
395 X  
396 X  
397 X  
398 X  
399 X  
400 X  
401 X  
402 X  
403 X  
404 X  
405 X  
406 X  
407 X  
408 X  
409 X  
410 X  
411 X  
412 X  
413 X  
414 X  
415 X  
416 X  
417 X  
418 X  
419 X  
420 X  
421 X  
422 X  
423 X  
424 X  
425 X  
426 X  
427 X  
428 X  
429 X  
430 X  
431 X  
432 X  
433 X  
434 X  
435 X  
436 X  
437 X  
438 X  
439 X  
440 X  
441 X  
442 X  
443 X  
444 X  
445 X  
446 X  
447 X  
448 X  
449 X  
450 X  
451 X  
452 X  
453 X  
454 X  
455 X  
456 X  
457 X  
458 X  
459 X  
460 X  
461 X  
462 X  
463 X  
464 X  
465 X  
466 X  
467 X  
468 X  
469 X  
470 X  
471 X  
472 X  
473 X  
474 X  
475 X  
476 X  
477 X  
478 X  
479 X  
480 X  
481 X  
482 X  
483 X  
484 X  
485 X  
486 X  
487 X  
488 X  
489 X  
490 X  
491 X  
492 X  
493 X  
494 X  
495 X  
496 X  
497 X  
498 X  
499 X  
500 X  
501 X  
502 X  
503 X  
504 X  
505 X  
506 X  
507 X  
508 X  
509 X  
510 X  
511 X  
512 X  
513 X  
514 X  
515 X  
516 X  
517 X  
518 X  
519 X  
520 X  
521 X  
522 X  
523 X  
524 X  
525 X  
526 X  
527 X  
528 X  
529 X  
530 X  
531 X  
532 X  
533 X  
534 X  
535 X  
536 X  
537 X  
538 X  
539 X  
540 X  
541 X  
542 X  
543 X  
544 X  
545 X  
546 X  
547 X  
548 X  
549 X  
550 X  
551 X  
552 X  
553 X  
554 X  
555 X  
556 X  
557 X  
558 X  
559 X  
560 X  
561 X  
562 X  
563 X  
564 X  
565 X  
566 X  
567 X  
568 X  
569 X  
570 X  
571 X  
572 X  
573 X  
574 X  
575 X  
576 X  
577 X  
578 X  
579 X  
580 X  
581 X  
582 X  
583 X  
584 X  
585 X  
586 X  
587 X  
588 X  
589 X  
590 X  
591 X  
592 X  
593 X  
594 X  
595 X  
596 X  
597 X  
598 X  
599 X  
600 X  
601 X  
602 X  
603 X  
604 X  
605 X  
606 X  
607 X  
608 X  
609 X  
610 X  
611 X  
612 X  
613 X  
614 X  
615 X  
616 X  
617 X  
618 X  
619 X  
620 X  
621 X  
622 X  
623 X  
624 X  
625 X  
626 X  
627 X  
628 X  
629 X  
630 X  
631 X  
632 X  
633 X  
634 X  
635 X  
636 X  
637 X  
638 X  
639 X  
640 X  
641 X  
642 X  
643 X  
644 X  
645 X  
646 X  
647 X  
648 X  
649 X  
650 X  
651 X  
652 X  
653 X  
654 X  
655 X  
656 X  
657 X  
658 X  
659 X  
660 X  
661 X  
662 X  
663 X  
664 X  
665 X  
666 X  
667 X  
668 X  
669 X  
670 X  
671 X  
672 X  
673 X  
674 X  
675 X  
676 X  
677 X  
678 X  
679 X  
680 X  
681 X  
682 X  
683 X  
684 X  
685 X  
686 X  
687 X  
688 X  
689 X  
690 X  
691 X  
692 X  
693 X  
694 X  
695 X  
696 X  
697 X  
698 X  
699 X  
700 X  
701 X  
702 X  
703 X  
704 X  
705 X  
706 X  
707 X  
708 X  
709 X  
710 X  
711 X  
712 X  
713 X  
714 X  
715 X  
716 X  
717 X  
718 X  
719 X  
720 X  
721 X  
722 X  
723 X  
724 X  
725 X  
726 X  
727 X  
728 X  
729 X  
730 X  
731 X  
732 X  
733 X  
734 X  
735 X  
736 X  
737 X  
738 X  
739 X  
740 X  
741 X  
742 X  
743 X  
744 X  
745 X  
746 X  
747 X  
748 X  
749 X  
750 X  
751 X  
752 X  
753 X  
754 X  
755 X  
756 X  
757 X  
758 X  
759 X  
760 X  
761 X  
762 X  
763 X  
764 X  
765 X  
766 X  
767 X  
768 X  
769 X  
770 X  
771 X  
772 X  
773 X  
774 X  
775 X  
776 X  
777 X  
778 X  
779 X  
780 X  
781 X  
782 X  
783 X  
784 X  
785 X  
786 X  
787 X  
788 X  
789 X  
790 X  
791 X  
792 X  
793 X  
794 X  
795 X  
796 X  
797 X  
798 X  
799 X  
800 X  
801 X  
802 X  
803 X  
804 X  
805 X  
806 X  
807 X  
808 X  
809 X  
810 X  
811 X  
812 X  
813 X  
814 X  
815 X  
816 X  
817 X  
818 X  
819 X  
820 X  
821 X  
822 X  
823 X  
824 X  
825 X  
826 X  
827 X  
828 X  
829 X  
830 X  
831 X  
832 X  
833 X  
834 X  
835 X  
836 X  
837 X  
838 X  
839 X  
840 X  
841 X  
842 X  
843 X  
844 X  
845 X  
846 X  
847 X  
848 X  
849 X  
850 X  
851 X  
852 X  
853 X  
854 X  
855 X  
856 X  
857 X  
858 X  
859 X  
860 X  
861 X  
862 X  
863 X  
864 X  
865 X  
866 X  
867 X  
868 X  
869 X  
870 X  
871 X  
872 X  
873 X  
874 X  
875 X  
876 X  
877 X  
878 X  
879 X  
880 X  
881 X  
882 X  
883 X  
884 X  
885 X  
886 X  
887 X  
888 X  
889 X  
890 X  
891 X  
892 X  
893 X  
894 X  
895 X  
896 X  
897 X  
898 X  
899 X  
900 X  
901 X  
902 X  
903 X  
904 X  
905 X  
906 X  
907 X  
908 X  
909 X  
910 X  
911 X  
912 X  
913 X  
914 X  
915 X  
916 X  
917 X  
918 X  
919 X  
920 X  
921 X  
922 X  
923 X  
924 X  
925 X  
926 X  
927 X  
928 X  
929 X  
930 X  
931 X  
932 X  
933 X  
934 X  
935 X  
936 X  
937 X  
938 X  
939 X  
940 X  
941 X  
942 X  
943 X  
944 X  
945 X  
946 X  
947 X  
948 X  
949 X  
950 X  
951 X  
952 X  
953 X  
954 X  
955 X  
956 X  
957 X  
958 X  
959 X  
960 X  
961 X  
962 X  
963 X  
964 X  
965 X  
966 X  
967 X  
968 X  
969 X  
970 X  
971 X  
972 X  
973 X  
974 X  
975 X  
976 X  
977 X  
978 X  
979 X  
980 X  
981 X  
982 X  
983 X  
984 X  
985 X  
986 X  
987 X  
988 X  
989 X  
990 X  
991 X  
992 X  
993 X  
994 X  
995 X  
996 X  
997 X  
998 X  
999 X  
1000 X  
1001 X  
1002 X  
1003 X  
1004 X  
1005 X  
1006 X  
1007 X  
1008 X  
1009 X  
1010 X  
1011 X  
1012 X  
1013 X  
1014 X  
1015 X  
1016 X  
1017 X  
1018 X  
1019 X  
1020 X  
1021 X  
1022 X  
1023 X  
1024 X  
1025 X  
1026 X  
1027 X  
1028 X  
1029 X  
1030 X  
1031 X  
1032 X  
1033 X  
1034 X  
1035 X  
1036 X  
1037 X  
1038 X  
1039 X  
1040 X  
1041 X  
1042 X  
1043 X  
1044 X  
1045 X  
1046 X  
1047 X  
1048 X  
1049 X  
1050 X  
1051 X  
1052 X  
1053 X  
1054 X  
1055 X  
1056 X  
1057 X  
1058 X  
1059 X  
1060 X  
1061 X  
1062 X  
1063 X  
1064 X  
1065 X  
1066 X  
1067 X  
1068 X  
1069 X  
1070 X  
1071 X  
1072 X  
1073 X  
1074 X  
1075 X  
1076 X  
1077 X  
1078 X  
1079 X  
1080 X  
1081 X  
1082 X  
1083 X  
1084 X  
1085 X  
1086 X  
1087 X  
1088 X  
1089 X  
1090 X  
1091 X  
1092 X  
1093 X  
1094 X  
1095 X  
1096 X  
1097 X  
1098 X  
1099 X  
1100 X  
1101 X  
1102 X  
1103 X  
1104 X  
1105 X  
1106 X  
1107 X  
1108 X  
1109 X  
1110 X  
1111 X  
1112 X  
1113 X  
1114 X  
1115 X  
1116 X  
1117 X  
1118 X  
1119 X  
1120 X  
1121 X  
1122 X  
1123 X  
1124 X  
1125 X  
1126 X  
1127 X  
1128 X  
1129 X  
1130 X  
1131 X  
1132 X  
1133 X  
1134 X  
1135 X  
1136 X  
1137 X  
1138 X  
1139 X  
1140 X  
1141 X  
1142 X  
1143 X  
1144 X  
1145 X  
1146 X  
1147 X  
1148 X  
1149 X  
1150 X  
1151 X  
1152 X  
1153 X  
1154 X  
1155 X  
1156 X  
1157 X  
1158 X  
1159 X  
1160 X  
1161 X  
1162 X  
1163 X  
1164 X  
1165 X  
1166 X  
1167 X  
1168 X  
1169 X  
1170 X  
1171 X  
1172 X  
1173 X  
1174 X  
1175 X  
1176 X  
1177 X  
1178 X  
1179 X  
1180 X  
1181 X  
1182 X  
1183 X  
1184 X  
1185 X  
1186 X  
1187 X  
1188 X  
1189 X  
1190 X  
1191 X  
1192 X  
1193 X  
1194 X  
1195 X  
1196 X  
1197 X  
1198 X  
1199 X  
1200 X  
1201 X  
1202 X  
1203 X  
1204 X  
1205 X  
1206 X  
1207 X  
1208 X  
1209 X  
1210 X  
1211 X  
1212 X  
1213 X  
1214 X  
1215 X  
1216 X  
1217 X  
1218 X  
1219 X  
1220 X  
1221 X  
1222 X  
1223 X  
1224 X  
1225 X  
1226 X  
1227 X  
1228 X  
1229 X  
1230 X  
1231 X  
1232 X  
1233 X  
1234 X  
1235 X  
1236 X  
1237 X  
1238 X  
1239 X  
1240 X  
1241 X  
1242 X  
1243 X  
1244 X  
1245 X  
1246 X  
1247 X  
1248 X  
1249 X  
1250 X  
1251 X  
1252 X  
1253 X  
1254 X  
1255 X  
1256 X  
1257 X  
1258 X  
1259 X  
1260 X  
1261 X  
1262 X  
1263 X  
1264 X  
1265 X  
1266 X  
1267 X  
1268 X  
1269 X  
1270 X  
1271 X  
1272 X  
1273 X  
1274 X  
1275 X  
1276 X  
1277 X  
1278 X  
1279 X  
1280 X  
1281 X  
1282 X  
1283 X  
1284 X  
1285 X  
1286 X  
1287 X  
1288 X  
1289 X  
1290 X  
1291 X  
1292 X  
1293 X  
1294 X  
1295 X  
1296 X  
1297 X  
1298 X  
1299 X  
1300 X  
1301 X  
1302 X  
1303 X  
1304 X  
1305 X  
1306 X  
1307 X  
1308 X  
1309 X  
1310 X  
1311 X  
1312 X  
1313 X  
1314 X  
1315 X  
1316 X  
1317 X  
1318 X  
1319 X  
1320 X  
1321 X  
1322 X  
1323 X  
1324 X  
1325 X  
1326 X  
1327 X  
1328 X  
1329 X  
1330 X  
1331 X  
1332 X  
1333 X  
1334 X  
1335 X  
1336 X  
1337 X  
1338 X  
1339 X  
1340 X  
1341 X  
1342 X  
1343 X  
1344 X  
1345 X  
1346 X  
1347 X  
1348 X  
1349 X  
1350 X  
1351 X  
1352 X  
1353 X  
1354 X  
1355 X  
1356 X  
1357 X  
1358 X  
1359 X  
1360 X  
1361 X  
1362 X  
1363 X  
1364 X  
1365 X  
1366 X  
1367 X  
1368 X  
1369 X  
1370 X  
1371 X  
1372 X  
1373 X  
1374 X  
1375 X  
1376 X  
1377 X  
1378 X  
1379 X  
1380 X  
1381 X  
1382 X  
1383 X  
1384 X  
1385 X  
1386 X  
1387 X  
1388 X  
1389 X  
1390 X  
1391 X  
1392 X  
1393 X  
1394 X  
1395 X  
1396 X  
1397 X  
1398 X  
1399 X  
1400 X  
1401 X  
1402 X  
1403 X  
1404 X  
1405 X  
1406 X  
1407 X  
1408 X  
1409 X  
1410 X  
1411 X  
1412 X  
1413 X  
1414 X  
1415 X  
1416 X  
1417 X  
1418 X  
1419 X  
1420 X  
1421 X  
1422 X  
1423 X  
1424 X  
1425 X  
1426 X  
1427 X  
1428 X  
1429 X  
1430 X  
1431 X  
1432 X  
1433 X  
1434 X  
1435 X  
1436 X  
1437 X  
1438 X  
1439 X  
1440 X  
1441 X  
1442 X  
1443 X  
1444 X  
1445 X  
1446 X  
1447 X  
1448 X  
1449 X  
1450 X  
1451 X  
1452 X  
1453 X  
1454 X  
1455 X  
1456 X  
1457 X  
1458 X  
1459 X  
1460 X  
1461 X  
1462 X  
1463 X  
1464 X  
1465 X  
1466 X  
1467 X  
1468 X  
1469 X  
1470 X  
1471 X  
1472 X  
1473 X  
1474 X  
1475 X  
1476 X  
1477 X  
1478 X  
1479 X  
1480 X  
1481 X  
1482 X  
1483 X  
1484 X  
1485 X  
1486 X  
1487 X  
1488 X  
1489 X  
1490 X  
1491 X  
1492 X  
1493 X  
1494 X  
1495 X  
1496 X  
1497 X  
1498 X  
1499 X  
1500 X  
1501 X  
1502 X  
1503 X  
1504 X  
1505 X  
1506 X  
1507 X  
1508 X  
1509 X  
1510 X  
1511 X  
1512 X  
1513 X  
1514 X  
1515 X  
1516 X  
1517 X  
1518 X  
1519 X  
1520 X  
1521 X  
1522 X  
1523 X  
1524 X  
1525 X  
1526 X  
1527 X  
1528 X  
1529 X  
1530 X  
1531 X  
1532 X  
1533 X  
1534 X  
1535 X  
1536 X  
1537 X  
1538 X  
1539 X  
1540 X  
1541 X  
1542 X  
1543 X  
1544 X  
1545 X  
1546 X  
1547 X  
1548 X  
1549 X  
1550 X  
1551 X  
1552 X  
1553 X  
1554 X  
1555 X  
1556 X  
1557 X  
1558 X  
1559 X  
1560 X  
1561 X  
1562 X  
1563 X  
1564 X  
1565 X  
1566 X  
1567 X  
1568 X  
1569 X  
1570 X  
1571 X  
1572 X  
1573 X  
1574 X  
1575 X  
1576 X  
1577 X  
1578 X  
1579 X  
1580 X  
1581 X  
1582 X  
1583 X  
1584 X  
1585 X  
1586 X  
1587 X  
1588 X  
1589 X  
1590 X  
1591 X  
1592 X  
1593 X  
1594 X  
1595 X  
1596 X  
1597 X  
1598 X  
1599 X  
1600 X  
1601 X  
1602 X  
1603 X  
1604 X  
1605 X  
1606 X  
1607 X  
1608 X  
1609 X  
1610 X  
1611 X  
1612 X  
1613 X  
1614 X  
1615 X  
1616 X  
1617 X  
1618 X  
1619 X  
1620 X  
1621 X  
1622 X  
1623 X  
1624 X  
1625 X  
1626 X  
1627 X  
1628 X  
1629 X  
1630 X  
1631 X  
1632 X  
1633 X  
1634 X  
1635 X  
1636 X  
1637 X  
1638 X  
1639 X  
1640 X  
1641 X  
1642 X  
1643 X  
1644 X  
1645 X  
1646 X  
1647 X  
1648 X  
1649 X  
1650 X  
1651 X  
1652 X  
1653 X  
1654 X  
1655 X  
1656 X  
1657 X  
1658 X  
1659 X  
1660 X  
1661 X  
1662 X  
1663 X  
1664 X  
1665 X  
1666 X  
1667 X  
1668 X  
1669 X  
1670 X  
1671 X  
1672 X  
1673 X  
1674 X  
1675 X  
1676 X  
1677 X  
1678 X  
1679 X  
1680 X  
1681 X  
1682 X  
1683 X  
1684 X  
1685 X  
1686 X  
1687 X  
1688 X  
1689 X  
1690 X  
1691 X  
1692 X  
1693 X  
1694 X  
1695 X  
1696 X  
1697 X  
1698 X  
1699 X  
1700 X  
1701 X  
1702 X  
1703 X  
1704 X  
1705 X  
1706 X  
1707 X  
1708 X  
1709 X  
1710 X  
1711 X  
1712 X  
1713 X  
1714 X  
1715 X  
1716 X  
1717 X  
1718 X  
1719 X  
1720 X  
1721 X  
1722 X  
1723 X  
1724 X  
1725 X  
1726 X  
1727 X  
1728 X  
1729 X  
1730 X  
1731 X  
1732 X  
1733 X  
1734 X  
1735 X  
1736 X  
1737 X  
1738 X  
1739 X  
1740 X  
1741 X  
1742 X  
1743 X  
1744 X  
1745 X  
1746 X  
1747 X  
1748 X  
1749 X  
1750 X  
1751 X  
1752 X  
1753 X  
1754 X  
1755 X  
1756 X  
1757 X  
1758 X  
1759 X  
1760 X  
1761 X  
1762 X  
1763 X  
1764 X  
1765 X  
1766 X  
1767 X  
1768 X  
1769 X  
1770 X  
1771 X  
1772 X  
1773 X  
1774 X  
1775 X

SUMX OUTPUT -- VER 1.0:4 M4  
M10 STATISTICAL SUMMARY AS OF 20FEO68

43-14400-10000, HT# 5, HISTOGRAM OF FAILURE IN EXTRACT#2 LOCATED IN WORDS 59, WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 9.

NOTE: This table is a consolidation of all three histograms on question 24.

FAILURES TO EXTRACT*				
INTERVAL	NO. OF FAILURES	MANEUVER BNS.	ALL OTHERS	THEATER
1	None	56% (359)	73% (565)	65% (924)
2	1	8% (50)	7% (53)	7% (103)
3	2	9% (58)	5% (42)	7% (100)
4	3	6% (36)	2% (19)	4% (55)
5	4	4% (27)	3% (23)	4% (50)
6	5	5% (31)	2% (16)	3% (47)
7	6	2% (10)	2% (13)	2% (23)
8-99	Over 6	11% (73)	6% (44)	8% (117)
100	No Response	91	127	218
TOTALS	Respondents	100% (644)	100% (775)	100% (1419)
	Questioned	735	902	1637
	(ave # failures, of those having failures, (std dev))	5.6 & 6.9	5.0 & 6.5	5.4 & 6.7
	(ave # failures, of all men, (std dev))	2.5 & 5.3	1.4 & 4.0	0.8 & 4.7

\* All men with less than four months in Vietnam were excluded.

**Question 24: Failures to extract--maneuver bns (hntograms for all others & theater available on request)**

ms for  
X X .  
X X  
X X  
X X

3 . --2X  
90 100  
96123456789C123456789C

3 1 2X  
94123456789123456789C  
90 100 110

12345678

4567890  
80

67676123  
70

19612345  
60

2 . . .  
12345678

34367890  
50

04  
21268179  
-1. . . . .

13  
49612345  
05

U  
61234567  
3

3 X  
23456789

01  
P176, 176  
X1X4X4X4

AL 1254

## INTERVIEW

10

2  
3  
4

2. 2. 2.

10

10

[illegible]

•





CONFIDENTIAL

STATISTICAL SUMMARY -- VERSION M4  
M16 STATISTICAL SUMMARIES AS OF 20F0060

STANDARD OLCIO, HT# 1. HISTOGRAM OF STICKING IN CHAMBER LOCATED IN WORDS 40,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

1400 X  
1372 X  
1364 X  
1316 X  
1288 X  
1260 X  
1232 X  
1204 X  
1176 X  
1148 X  
1120 X  
1092 X  
1064 X  
1036 X  
1008 X  
980 X  
952 X  
924 X  
896 X  
868 X  
840 X  
812 X  
784 X  
756 X  
728 X  
700 X  
672 X  
644 X  
616 X  
588 X  
560 X  
532 X  
504 X  
476 X  
448 X  
420 X  
392 X  
364 X  
336 X  
308 X  
280 X  
252 X  
224 X  
196 X  
168 X  
140 X  
112 X  
84 X  
56 X  
28 X  
0 X  
INTERVAL 1234567890  
10

NOTE: This table is a consolidation of all three histograms on question 25.

DID ROUNDS STICK IN CHAMBER WHEN CHAMBERED FOR:				
INTERVAL	RESPONSE	0-8 HOURS	9-16 HOURS	17-24 HOURS
1	No Response	-	438	-
2	Yes	13% (206)	8% (88)	12% (141)
3	No	87% (1376)	92% (1068)	88% (1029)
TOTALS:	Respondents	100% (1582)	100% (1156)	100% (1170)
	Questioned	2020	2021	2019

Question 25a: Do rounds stick in the chamber when left for: 0-8 hours?  
(Histograms for 9-16 hours and 17-24 hours available on request)

CONFIDENTIAL

[illegible]

STATISTICAL SUMMARIES AS OF 2011:260

STANDARD ILLUSTRATION # 1 HISTOGRAM OF NO. INSPECTIONS/NO. LOCATED IN WORDS WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS, 0, 63,

UNIT RIFLE INSPECTION FREQUENCY (INSPECTIONS/MONTH)			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No Inspections Conducted	391	21%
2	1/Month (Monthly)	277	15%
3-4	2 or 3/Month	99	5%
5	4/Month (Weekly)	396	21%
6-8	5-7/Month	113	6%
9	8/Month (Twice Weekly)	100	5%
10-28	9-27/Month	120	6%
32-99	31-98/Month	7	4%
89	No Response	147	-
100	Yes--No Number Indicated	249	13%
TOTALS		2021	100% (1874)

$\bar{X}$  (ave freq. of insps) = 5.6 inspections per month  
 $\sigma$  (std dev) = 8.0 inspections

**Question 26a: Frequency of unit rifle inspections.**

[illegible]

79

CONFIDENTIAL

416 SIMULATED SUMMARY AS OF 20FEB88

STANDARD C ULCIO, HT# 1 HISTOGRAM OF WHO INSPLCTS, LOCATED IN WORDS 64, 7

WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 10,

NUMBER  
 050  
 053  
 056  
 059  
 062  
 065  
 068  
 071  
 074  
 077  
 080  
 083  
 086  
 089  
 092  
 095  
 098  
 101  
 104  
 107  
 110  
 113  
 116  
 119  
 122  
 125  
 128  
 131  
 134  
 137  
 140  
 143  
 146  
 149  
 152  
 155  
 158  
 161  
 164  
 167  
 170  
 173  
 176  
 179  
 182  
 185  
 188  
 191  
 194  
 197  
 200  
 203  
 206  
 209  
 212  
 215  
 218  
 221  
 224  
 227  
 230  
 233  
 236  
 239  
 242  
 245  
 248  
 251  
 254  
 257  
 260  
 263  
 266  
 269  
 272  
 275  
 278  
 281  
 284  
 287  
 290  
 293  
 296  
 299  
 302  
 305  
 308  
 311  
 314  
 317  
 320  
 323  
 326  
 329  
 332  
 335  
 338  
 341  
 344  
 347  
 350  
 353  
 356  
 359  
 362  
 365  
 368  
 371  
 374  
 377  
 380  
 383  
 386  
 389  
 392  
 395  
 398  
 401  
 404  
 407  
 410  
 413  
 416  
 419  
 422  
 425  
 428  
 431  
 434  
 437  
 440  
 443  
 446  
 449  
 452  
 455  
 458  
 461  
 464  
 467  
 470  
 473  
 476  
 479  
 482  
 485  
 488  
 491  
 494  
 497  
 500  
 503  
 506  
 509  
 512  
 515  
 518  
 521  
 524  
 527  
 530  
 533  
 536  
 539  
 542  
 545  
 548  
 551  
 554  
 557  
 560  
 563  
 566  
 569  
 572  
 575  
 578  
 581  
 584  
 587  
 590  
 593  
 596  
 599  
 602  
 605  
 608  
 611  
 614  
 617  
 620  
 623  
 626  
 629  
 632  
 635  
 638  
 641  
 644  
 647  
 650  
 653  
 656  
 659  
 662  
 665  
 668  
 671  
 674  
 677  
 680  
 683  
 686  
 689  
 692  
 695  
 698  
 701  
 704  
 707  
 710  
 713  
 716  
 719  
 722  
 725  
 728  
 731  
 734  
 737  
 740  
 743  
 746  
 749  
 752  
 755  
 758  
 761  
 764  
 767  
 770  
 773  
 776  
 779  
 782  
 785  
 788  
 791  
 794  
 797  
 800  
 803  
 806  
 809  
 812  
 815  
 818  
 821  
 824  
 827  
 830  
 833  
 836  
 839  
 842  
 845  
 848  
 851  
 854  
 857  
 860  
 863  
 866  
 869  
 872  
 875  
 878  
 881  
 884  
 887  
 890  
 893  
 896  
 899  
 902  
 905  
 908  
 911  
 914  
 917  
 920  
 923  
 926  
 929  
 932  
 935  
 938  
 941  
 944  
 947  
 950  
 953  
 956  
 959  
 962  
 965  
 968  
 971  
 974  
 977  
 980  
 983  
 986  
 989  
 992  
 995  
 998  
 1001  
 1004  
 1007  
 1010  
 1013  
 1016  
 1019  
 1022  
 1025  
 1028  
 1031  
 1034  
 1037  
 1040  
 1043  
 1046  
 1049  
 1052  
 1055  
 1058  
 1061  
 1064  
 1067  
 1070  
 1073  
 1076  
 1079  
 1082  
 1085  
 1088  
 1091  
 1094  
 1097  
 1100  
 1103  
 1106  
 1109  
 1112  
 1115  
 1118  
 1121  
 1124  
 1127  
 1130  
 1133  
 1136  
 1139  
 1142  
 1145  
 1148  
 1151  
 1154  
 1157  
 1160  
 1163  
 1166  
 1169  
 1172  
 1175  
 1178  
 1181  
 1184  
 1187  
 1190  
 1193  
 1196  
 1199  
 1202  
 1205  
 1208  
 1211  
 1214  
 1217  
 1220  
 1223  
 1226  
 1229  
 1232  
 1235  
 1238  
 1241  
 1244  
 1247  
 1250  
 1253  
 1256  
 1259  
 1262  
 1265  
 1268  
 1271  
 1274  
 1277  
 1280  
 1283  
 1286  
 1289  
 1292  
 1295  
 1298  
 1301  
 1304  
 1307  
 1310  
 1313  
 1316  
 1319  
 1322  
 1325  
 1328  
 1331  
 1334  
 1337  
 1340  
 1343  
 1346  
 1349  
 1352  
 1355  
 1358  
 1361  
 1364  
 1367  
 1370  
 1373  
 1376  
 1379  
 1382  
 1385  
 1388  
 1391  
 1394  
 1397  
 1400  
 1403  
 1406  
 1409  
 1412  
 1415  
 1418  
 1421  
 1424  
 1427  
 1430  
 1433  
 1436  
 1439  
 1442  
 1445  
 1448  
 1451  
 1454  
 1457  
 1460  
 1463  
 1466  
 1469  
 1472  
 1475  
 1478  
 1481  
 1484  
 1487  
 1490  
 1493  
 1496  
 1499  
 1502  
 1505  
 1508  
 1511  
 1514  
 1517  
 1520  
 1523  
 1526  
 1529  
 1532  
 1535  
 1538  
 1541  
 1544  
 1547  
 1550  
 1553  
 1556  
 1559  
 1562  
 1565  
 1568  
 1571  
 1574  
 1577  
 1580  
 1583  
 1586  
 1589  
 1592  
 1595  
 1598  
 1601  
 1604  
 1607  
 1610  
 1613  
 1616  
 1619  
 1622  
 1625  
 1628  
 1631  
 1634  
 1637  
 1640  
 1643  
 1646  
 1649  
 1652  
 1655  
 1658  
 1661  
 1664  
 1667  
 1670  
 1673  
 1676  
 1679  
 1682  
 1685  
 1688  
 1691  
 1694  
 1697  
 1700  
 1703  
 1706  
 1709  
 1712  
 1715  
 1718  
 1721  
 1724  
 1727  
 1730  
 1733  
 1736  
 1739  
 1742  
 1745  
 1748  
 1751  
 1754  
 1757  
 1760  
 1763  
 1766  
 1769  
 1772  
 1775  
 1778  
 1781  
 1784  
 1787  
 1790  
 1793  
 1796  
 1799  
 1802  
 1805  
 1808  
 1811  
 1814  
 1817  
 1820  
 1823  
 1826  
 1829  
 1832  
 1835  
 1838  
 1841  
 1844  
 1847  
 1850  
 1853  
 1856  
 1859  
 1862  
 1865  
 1868  
 1871  
 1874  
 1877  
 1880  
 1883  
 1886  
 1889  
 1892  
 1895  
 1898  
 1901  
 1904  
 1907  
 1910  
 1913  
 1916  
 1919  
 1922  
 1925  
 1928  
 1931  
 1934  
 1937  
 1940  
 1943  
 1946  
 1949  
 1952  
 1955  
 1958  
 1961  
 1964  
 1967  
 1970  
 1973  
 1976  
 1979  
 1982  
 1985  
 1988  
 1991  
 1994  
 1997  
 2000  
 2003  
 2006  
 2009  
 2012  
 2015  
 2018  
 2021  
 2024  
 2027  
 2030  
 2033  
 2036  
 2039  
 2042  
 2045  
 2048  
 2051  
 2054  
 2057  
 2060  
 2063  
 2066  
 2069  
 2072  
 2075  
 2078  
 2081  
 2084  
 2087  
 2090  
 2093  
 2096  
 2099  
 2102  
 2105  
 2108  
 2111  
 2114  
 2117  
 2120  
 2123  
 2126  
 2129  
 2132  
 2135  
 2138  
 2141  
 2144  
 2147  
 2150  
 2153  
 2156  
 2159  
 2162  
 2165  
 2168  
 2171  
 2174  
 2177  
 2180  
 2183  
 2186  
 2189  
 2192  
 2195  
 2198  
 2201  
 2204  
 2207  
 2210  
 2213  
 2216  
 2219  
 2222  
 2225  
 2228  
 2231  
 2234  
 2237  
 2240  
 2243  
 2246  
 2249  
 2252  
 2255  
 2258  
 2261  
 2264  
 2267  
 2270  
 2273  
 2276  
 2279  
 2282  
 2285  
 2288  
 2291  
 2294  
 2297  
 2300  
 2303  
 2306  
 2309  
 2312  
 2315  
 2318  
 2321  
 2324  
 2327  
 2330  
 2333  
 2336  
 2339  
 2342  
 2345  
 2348  
 2351  
 2354  
 2357  
 2360  
 2363  
 2366  
 2369  
 2372  
 2375  
 2378  
 2381  
 2384  
 2387  
 2390  
 2393  
 2396  
 2399  
 2402  
 2405  
 2408  
 2411  
 2414  
 2417  
 2420  
 2423  
 2426  
 2429  
 2432  
 2435  
 2438  
 2441  
 2444  
 2447  
 2450  
 2453  
 2456  
 2459  
 2462  
 2465  
 2468  
 2471  
 2474  
 2477  
 2480  
 2483  
 2486  
 2489  
 2492  
 2495  
 2498  
 2501  
 2504  
 2507  
 2510  
 2513  
 2516  
 2519  
 2522  
 2525  
 2528  
 2531  
 2534  
 2537  
 2540  
 2543  
 2546  
 2549  
 2552  
 2555  
 2558  
 2561  
 2564  
 2567  
 2570  
 2573  
 2576  
 2579  
 2582  
 2585  
 2588  
 2591  
 2594  
 2597  
 2600  
 2603  
 2606  
 2609  
 2612  
 2615  
 2618  
 2621  
 2624  
 2627  
 2630  
 2633  
 2636  
 2639  
 2642  
 2645  
 2648  
 2651  
 2654  
 2657  
 2660  
 2663  
 2666  
 2669  
 2672  
 2675  
 2678  
 2681  
 2684  
 2687  
 2690  
 2693  
 2696  
 2699  
 2702  
 2705  
 2708  
 2711  
 2714  
 2717  
 2720  
 2723  
 2726  
 2729  
 2732  
 2735  
 2738  
 2741  
 2744  
 2747  
 2750  
 2753  
 2756  
 2759  
 2762  
 2765  
 2768  
 2771  
 2774  
 2777  
 2780  
 2783  
 2786  
 2789  
 2792  
 2795  
 2798  
 2801  
 2804  
 2807  
 2810  
 2813  
 2816  
 2819  
 2822  
 2825  
 2828  
 2831  
 2834  
 2837  
 2840  
 2843  
 2846  
 2849  
 2852  
 2855  
 2858  
 2861  
 2864  
 2867  
 2870  
 2873  
 2876  
 2879  
 2882  
 2885  
 2888  
 2891  
 2894  
 2897  
 2900  
 2903  
 2906  
 2909  
 2912  
 2915  
 2918  
 2921  
 2924  
 2927  
 2930  
 2933  
 2936  
 2939  
 2942  
 2945  
 2948  
 2951  
 2954  
 2957  
 2960  
 2963  
 2966  
 2969  
 2972  
 2975  
 2978  
 2981  
 2984  
 2987  
 2990  
 2993  
 2996  
 2999  
 3002  
 3005  
 3008  
 3011  
 3014  
 3017  
 3020  
 3023  
 3026  
 3029  
 3032  
 3035  
 3038  
 3041  
 3044  
 3047  
 3050  
 3053  
 3056  
 3059  
 3062  
 3065  
 3068  
 3071  
 3074  
 3077  
 3080  
 3083  
 3086  
 3089  
 3092  
 3095  
 3098  
 3101  
 3104  
 3107  
 3110  
 3113  
 3116  
 3119  
 3122  
 3125  
 3128  
 3131  
 3134  
 3137  
 3140  
 3143  
 3146  
 3149  
 3152  
 3155  
 3158  
 3161  
 3164  
 3167  
 3170  
 3173  
 3176  
 3179  
 3182  
 3185  
 3188  
 3191  
 3194  
 3197  
 3200  
 3203  
 3206  
 3209  
 3212  
 3215  
 3218  
 3221  
 3224  
 3227  
 3230  
 3233  
 3236  
 3239  
 3242  
 3245  
 3248  
 3251  
 3254  
 3257  
 3260  
 3263  
 3266  
 3269  
 3272  
 3275  
 3278  
 3281  
 3284  
 3287  
 3290  
 3293  
 3296  
 3299  
 3302  
 3305  
 3308  
 3311  
 3314  
 3317  
 3320  
 3323  
 3326  
 3329  
 3332  
 3335  
 3338  
 3341  
 3344  
 3347  
 3350  
 3353  
 3356  
 3359  
 3362  
 3365  
 3368  
 3371  
 3374  
 3377  
 3380  
 3383  
 3386  
 3389  
 3392  
 3395  
 3398  
 3401  
 3404  
 3407  
 3410  
 3413  
 3416  
 3419  
 3422  
 3425  
 3428  
 3431  
 3434  
 3437  
 3440  
 3443  
 3446  
 3449  
 3452  
 3455  
 3458  
 3461  
 3464  
 3467  
 3470  
 3473  
 3476  
 3479  
 3482  
 3485  
 3488  
 3491  
 3494  
 3497  
 3500  
 3503  
 3506  
 3509  
 3512  
 3515  
 3518  
 3521  
 3524  
 3527  
 3530  
 3533  
 3536  
 3539  
 3542  
 3545  
 3548  
 3551  
 3554  
 3557  
 3560  
 3563  
 3566  
 3569  
 3572  
 3575  
 3578  
 3581  
 3584  
 3587  
 3590  
 3593  
 3596  
 3599  
 3602  
 3605  
 3608  
 3611  
 3614  
 3617  
 3620  
 3623  
 3626  
 3629  
 3632  
 3635  
 3638  
 3641  
 3644  
 3647  
 3650  
 3653  
 3656  
 3659  
 3662  
 3665  
 3668  
 3671  
 3674  
 3677  
 3680  
 3683  
 3686  
 3689  
 3692  
 3695  
 3698  
 3701  
 3704  
 3707  
 3710  
 3713  
 3716  
 3719  
 3722  
 3725  
 3728  
 3731  
 3734  
 3737  
 3740  
 3743  
 3746  
 3749  
 3752  
 3755  
 3758  
 3761  
 3764  
 3767  
 3770  
 3773  
 3776  
 3779  
 3782  
 3785  
 3788  
 3791  
 3794  
 3797  
 3800  
 3803  
 3806  
 3809  
 3812  
 3815  
 3818  
 3821  
 3824  
 3827  
 3830  
 3833  
 3836  
 3839  
 3842  
 3845  
 3848  
 3851  
 3854  
 3857  
 3860  
 3863  
 3866  
 3869  
 3872  
 3875  
 3878  
 3881  
 3884  
 3887  
 3890  
 3893  
 3896  
 3899  
 3902  
 3905  
 3908  
 3911  
 3914  
 3917  
 3920  
 3923  
 3926  
 3929  
 3932  
 3935  
 3938  
 3941  
 3944  
 3947  
 3950  
 3953  
 3956  
 3959  
 3962  
 3965  
 3968  
 3971  
 3974  
 3977  
 3980  
 3983  
 3986  
 3989  
 3992  
 3995  
 3998  
 4001  
 4004  
 4007  
 4010  
 4013  
 4016  
 4019  
 4022  
 4025  
 4028  
 4031  
 4034  
 4037  
 4040  
 4043  
 4046  
 4049  
 4052  
 4055  
 4058  
 4061  
 4064  
 4067  
 4070  
 4073  
 4076  
 4079  
 4082  
 4085  
 4088  
 4091  
 4094  
 4097  
 4100  
 4103  
 4106  
 4109  
 4112  
 4115  
 4118  
 4121  
 4124  
 4127  
 4130  
 4133  
 4136  
 4139  
 4142  
 4145  
 4148  
 4151  
 4154  
 4157  
 4160  
 4163  
 4166  
 4169  
 4172  
 4175  
 4178  
 4181  
 4184  
 4187  
 4190  
 4193  
 4196  
 4199

CONFIDENTIAL

ML6 SUMMARY OUTPUT -- VERSION M6  
ML6 STATISTICAL SUMMARIES AS OF 2010000

STANDARD: BLOCIO, M6 1 HISTOGRAM OF MAG. AND AMMO INSP. LOCATED IN WORDS 57,  
ML6 ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

030 2

031 2

032 2

033 2

034 2

035 2

036 2

037 2

038 2

039 2

040 2

041 2

042 2

043 2

044 2

045 2

046 2

047 2

048 2

049 2

050 2

051 2

052 2

053 2

054 2

055 2

056 2

057 2

058 2

059 2

060 2

061 2

062 2

NUMBER

ARE UNIT MAG & AMMO INSPECTIONS CONDUCTED?			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No Response	670	--
2	Yes	818	61%
3	No	523	39%
TOTALS		2011	100% (1341)

Question 26c: Are unit magazine and ammunition inspections conducted?

INTERVAL 1/1650/896  
10

CONFIDENTIAL

SUMX OUTPUT -- VERSION M4  
M16- STATISTICAL SUMMARY AS OF 20FEB68

STANDARD DEVIATION, WITH ASSOCIATED WEIGHTING FACTORS	MEAN DISTURBANCE OF PERCENT OF TRACER LOCATED IN WORDS, O.	LOCATED IN WORDS
0.00	0.00	69.
0.05	0.05	68.
0.10	0.10	67.
0.15	0.15	66.
0.20	0.20	65.
0.25	0.25	64.
0.30	0.30	63.
0.35	0.35	62.
0.40	0.40	61.
0.45	0.45	60.
0.50	0.50	59.
0.55	0.55	58.
0.60	0.60	57.
0.65	0.65	56.
0.70	0.70	55.
0.75	0.75	54.
0.80	0.80	53.
0.85	0.85	52.
0.90	0.90	51.
0.95	0.95	50.
1.00	1.00	49.
1.05	1.05	48.
1.10	1.10	47.
1.15	1.15	46.
1.20	1.20	45.
1.25	1.25	44.
1.30	1.30	43.
1.35	1.35	42.
1.40	1.40	41.
1.45	1.45	40.
1.50	1.50	39.
1.55	1.55	38.
1.60	1.60	37.
1.65	1.65	36.
1.70	1.70	35.
1.75	1.75	34.
1.80	1.80	33.
1.85	1.85	32.
1.90	1.90	31.
1.95	1.95	30.
2.00	2.00	29.
2.05	2.05	28.
2.10	2.10	27.
2.15	2.15	26.
2.20	2.20	25.
2.25	2.25	24.
2.30	2.30	23.
2.35	2.35	22.
2.40	2.40	21.
2.45	2.45	20.
2.50	2.50	19.
2.55	2.55	18.
2.60	2.60	17.
2.65	2.65	16.
2.70	2.70	15.
2.75	2.75	14.
2.80	2.80	13.
2.85	2.85	12.
2.90	2.90	11.
2.95	2.95	10.
3.00	3.00	9.
3.05	3.05	8.
3.10	3.10	7.
3.15	3.15	6.
3.20	3.20	5.
3.25	3.25	4.
3.30	3.30	3.
3.35	3.35	2.
3.40	3.40	1.
3.45	3.45	0.

PERCENTAGE TRACER FIRED IN COMBAT			
INTERVAL	RESPONSE	NUMBER	PERCENTAGE
1	No. Response	738	-
2-11	1-10%	424	34%
12-21	11-20%	264	21%
22-31	21-30%	177	14%
32-41	31-40%	88	7%
42-51	41-50%	142	14%
52-61	51-60%	3	1%
62-71	61-70%	4	< 1%
72-81	71-80%	46	4%
82-91	81-90%	20	2%
92-100	91-100%	55	4%
TOTALS		2021	100%

$\bar{X}$  (ave) = 28.5% tracer

... ..  
 (std dev)=25.0% tractor

Question: 27: Percentage tracer fired in combat

[illegible]

11-11-82

CONFIDENTIAL

M16 SUBS OUTPUT -- VARIOUS NO  
M16 STATISTICAL SUMMARIES AS OF 2/1/66

STANDARD C, M16, M16 1 HISTOGRAM OF CLEANING MAG. - AMMO LOCATED IN WORDS 66,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

NUMBER  
620  
630  
640  
650  
660  
670  
680  
690  
700  
710  
720  
730  
740  
750  
760  
770  
780  
790  
800  
810  
820  
830  
840  
850  
860  
870  
880  
890  
900  
910  
920  
930  
940  
950  
960  
970  
980  
990  
1000  
1010  
1020  
1030  
1040  
1050  
1060  
1070  
1080  
1090  
1100  
1110  
1120  
1130  
1140  
1150  
1160  
1170  
1180  
1190  
1200  
1210  
1220  
1230  
1240  
1250  
1260  
1270  
1280  
1290  
1300  
1310  
1320  
1330  
1340  
1350  
1360  
1370  
1380  
1390  
1400  
1410  
1420  
1430  
1440  
1450  
1460  
1470  
1480  
1490  
1500  
1510  
1520  
1530  
1540  
1550  
1560  
1570  
1580  
1590  
1600  
1610  
1620  
1630  
1640  
1650  
1660  
1670  
1680  
1690  
1700  
1710  
1720  
1730  
1740  
1750  
1760  
1770  
1780  
1790  
1800  
1810  
1820  
1830  
1840  
1850  
1860  
1870  
1880  
1890  
1900  
1910  
1920  
1930  
1940  
1950  
1960  
1970  
1980  
1990  
2000  
2010  
2020  
2030  
2040  
2050  
2060  
2070  
2080  
2090  
2100  
2110  
2120  
2130  
2140  
2150  
2160  
2170  
2180  
2190  
2200  
2210  
2220  
2230  
2240  
2250  
2260  
2270  
2280  
2290  
2300  
2310  
2320  
2330  
2340  
2350  
2360  
2370  
2380  
2390  
2400  
2410  
2420  
2430  
2440  
2450  
2460  
2470  
2480  
2490  
2500  
2510  
2520  
2530  
2540  
2550  
2560  
2570  
2580  
2590  
2600  
2610  
2620  
2630  
2640  
2650  
2660  
2670  
2680  
2690  
2700  
2710  
2720  
2730  
2740  
2750  
2760  
2770  
2780  
2790  
2800  
2810  
2820  
2830  
2840  
2850  
2860  
2870  
2880  
2890  
2900  
2910  
2920  
2930  
2940  
2950  
2960  
2970  
2980  
2990  
3000  
3010  
3020  
3030  
3040  
3050  
3060  
3070  
3080  
3090  
3100  
3110  
3120  
3130  
3140  
3150  
3160  
3170  
3180  
3190  
3200  
3210  
3220  
3230  
3240  
3250  
3260  
3270  
3280  
3290  
3300  
3310  
3320  
3330  
3340  
3350  
3360  
3370  
3380  
3390  
3400  
3410  
3420  
3430  
3440  
3450  
3460  
3470  
3480  
3490  
3500  
3510  
3520  
3530  
3540  
3550  
3560  
3570  
3580  
3590  
3600  
3610  
3620  
3630  
3640  
3650  
3660  
3670  
3680  
3690  
3700  
3710  
3720  
3730  
3740  
3750  
3760  
3770  
3780  
3790  
3800  
3810  
3820  
3830  
3840  
3850  
3860  
3870  
3880  
3890  
3900  
3910  
3920  
3930  
3940  
3950  
3960  
3970  
3980  
3990  
4000  
4010  
4020  
4030  
4040  
4050  
4060  
4070  
4080  
4090  
4100  
4110  
4120  
4130  
4140  
4150  
4160  
4170  
4180  
4190  
4200  
4210  
4220  
4230  
4240  
4250  
4260  
4270  
4280  
4290  
4300  
4310  
4320  
4330  
4340  
4350  
4360  
4370  
4380  
4390  
4400  
4410  
4420  
4430  
4440  
4450  
4460  
4470  
4480  
4490  
4500  
4510  
4520  
4530  
4540  
4550  
4560  
4570  
4580  
4590  
4600  
4610  
4620  
4630  
4640  
4650  
4660  
4670  
4680  
4690  
4700  
4710  
4720  
4730  
4740  
4750  
4760  
4770  
4780  
4790  
4800  
4810  
4820  
4830  
4840  
4850  
4860  
4870  
4880  
4890  
4900  
4910  
4920  
4930  
4940  
4950  
4960  
4970  
4980  
4990  
5000  
5010  
5020  
5030  
5040  
5050  
5060  
5070  
5080  
5090  
5100  
5110  
5120  
5130  
5140  
5150  
5160  
5170  
5180  
5190  
5200  
5210  
5220  
5230  
5240  
5250  
5260  
5270  
5280  
5290  
5300  
5310  
5320  
5330  
5340  
5350  
5360  
5370  
5380  
5390  
5400  
5410  
5420  
5430  
5440  
5450  
5460  
5470  
5480  
5490  
5500  
5510  
5520  
5530  
5540  
5550  
5560  
5570  
5580  
5590  
5600  
5610  
5620  
5630  
5640  
5650  
5660  
5670  
5680  
5690  
5700  
5710  
5720  
5730  
5740  
5750  
5760  
5770  
5780  
5790  
5800  
5810  
5820  
5830  
5840  
5850  
5860  
5870  
5880  
5890  
5900  
5910  
5920  
5930  
5940  
5950  
5960  
5970  
5980  
5990  
6000  
6010  
6020  
6030  
6040  
6050  
6060  
6070  
6080  
6090  
6100  
6110  
6120  
6130  
6140  
6150  
6160  
6170  
6180  
6190  
6200  
6210  
6220  
6230  
6240  
6250  
6260  
6270  
6280  
6290  
6300  
6310  
6320  
6330  
6340  
6350  
6360  
6370  
6380  
6390  
6400  
6410  
6420  
6430  
6440  
6450  
6460  
6470  
6480  
6490  
6500  
6510  
6520  
6530  
6540  
6550  
6560  
6570  
6580  
6590  
6600  
6610  
6620  
6630  
6640  
6650  
6660  
6670  
6680  
6690  
6700  
6710  
6720  
6730  
6740  
6750  
6760  
6770  
6780  
6790  
6800  
6810  
6820  
6830  
6840  
6850  
6860  
6870  
6880  
6890  
6900  
6910  
6920  
6930  
6940  
6950  
6960  
6970  
6980  
6990  
7000  
7010  
7020  
7030  
7040  
7050  
7060  
7070  
7080  
7090  
7100  
7110  
7120  
7130  
7140  
7150  
7160  
7170  
7180  
7190  
7200  
7210  
7220  
7230  
7240  
7250  
7260  
7270  
7280  
7290  
7300  
7310  
7320  
7330  
7340  
7350  
7360  
7370  
7380  
7390  
7400  
7410  
7420  
7430  
7440  
7450  
7460  
7470  
7480  
7490  
7500  
7510  
7520  
7530  
7540  
7550  
7560  
7570  
7580  
7590  
7600  
7610  
7620  
7630  
7640  
7650  
7660  
7670  
7680  
7690  
7700  
7710  
7720  
7730  
7740  
7750  
7760  
7770  
7780  
7790  
7800  
7810  
7820  
7830  
7840  
7850  
7860  
7870  
7880  
7890  
7900  
7910  
7920  
7930  
7940  
7950  
7960  
7970  
7980  
7990  
8000  
8010  
8020  
8030  
8040  
8050  
8060  
8070  
8080  
8090  
8100  
8110  
8120  
8130  
8140  
8150  
8160  
8170  
8180  
8190  
8200  
8210  
8220  
8230  
8240  
8250  
8260  
8270  
8280  
8290  
8300  
8310  
8320  
8330  
8340  
8350  
8360  
8370  
8380  
8390  
8400  
8410  
8420  
8430  
8440  
8450  
8460  
8470  
8480  
8490  
8500  
8510  
8520  
8530  
8540  
8550  
8560  
8570  
8580  
8590  
8600  
8610  
8620  
8630  
8640  
8650  
8660  
8670  
8680  
8690  
8700  
8710  
8720  
8730  
8740  
8750  
8760  
8770  
8780  
8790  
8800  
8810  
8820  
8830  
8840  
8850  
8860  
8870  
8880  
8890  
8900  
8910  
8920  
8930  
8940  
8950  
8960  
8970  
8980  
8990  
9000  
9010  
9020  
9030  
9040  
9050  
9060  
9070  
9080  
9090  
9100  
9110  
9120  
9130  
9140  
9150  
9160  
9170  
9180  
9190  
9200  
9210  
9220  
9230  
9240  
9250  
9260  
9270  
9280  
9290  
9300  
9310  
9320  
9330  
9340  
9350  
9360  
9370  
9380  
9390  
9400  
9410  
9420  
9430  
9440  
9450  
9460  
9470  
9480  
9490  
9500  
9510  
9520  
9530  
9540  
9550  
9560  
9570  
9580  
9590  
9600  
9610  
9620  
9630  
9640  
9650  
9660  
9670  
9680  
9690  
9700  
9710  
9720  
9730  
9740  
9750  
9760  
9770  
9780  
9790  
9800  
9810  
9820  
9830  
9840  
9850  
9860  
9870  
9880  
9890  
9900  
9910  
9920  
9930  
9940  
9950  
9960  
9970  
9980  
9990  
10000  
10010  
10020  
10030  
10040  
10050  
10060  
10070  
10080  
10090  
10100  
10110  
10120  
10130  
10140  
10150  
10160  
10170  
10180  
10190  
10200  
10210  
10220  
10230  
10240  
10250  
10260  
10270  
10280  
10290  
10300  
10310  
10320  
10330  
10340  
10350  
10360  
10370  
10380  
10390  
10400  
10410  
10420  
10430  
10440  
10450  
10460  
10470  
10480  
10490  
10500  
10510  
10520  
10530  
10540  
10550  
10560  
10570  
10580  
10590  
10600  
10610  
10620  
10630  
10640  
10650  
10660  
10670  
10680  
10690  
10700  
10710  
10720  
10730  
10740  
10750  
10760  
10770  
10780  
10790  
10800  
10810  
10820  
10830  
10840  
10850  
10860  
10870  
10880  
10890  
10900  
10910  
10920  
10930  
10940  
10950  
10960  
10970  
10980  
10990  
11000  
11010  
11020  
11030  
11040  
11050  
11060  
11070  
11080  
11090  
11100  
11110  
11120  
11130  
11140  
11150  
11160  
11170  
11180  
11190  
11200  
11210  
11220  
11230  
11240  
11250  
11260  
11270  
11280  
11290  
11300  
11310  
11320  
11330  
11340  
11350  
11360  
11370  
11380  
11390  
11400  
11410  
11420  
11430  
11440  
11450  
11460  
11470  
11480  
11490  
11500  
11510  
11520  
11530  
11540  
11550  
11560  
11570  
11580  
11590  
11600  
11610  
11620  
11630  
11640  
11650  
11660  
11670  
11680  
11690  
11700  
11710  
11720  
11730  
11740  
11750  
11760  
11770  
11780  
11790  
11800  
11810  
11820  
11830  
11840  
11850  
11860  
11870  
11880  
11890  
11900  
11910  
11920  
11930  
11940  
11950  
11960  
11970  
11980  
11990  
12000  
12010  
12020  
12030  
12040  
12050  
12060  
12070  
12080  
12090  
12100  
12110  
12120  
12130  
12140  
12150  
12160  
12170  
12180  
12190  
12200  
12210  
12220  
12230  
12240  
12250  
12260  
12270  
12280  
12290  
12300  
12310  
12320  
12330  
12340  
12350  
12360  
12370  
12380  
12390  
12400  
12410  
12420  
12430  
12440  
12450  
12460  
12470  
12480  
12490  
12500  
12510  
12520  
12530  
12540  
12550  
12560  
12570  
12580  
12590  
12600  
12610  
12620  
12630  
12640  
12650  
12660  
12670  
12680  
12690  
12700  
12710  
12720  
12730  
12740  
12750  
12760  
12770  
12780  
12790  
12800  
12810  
12820  
12830  
12840  
12850  
12860  
12870  
12880  
12890  
12900  
12910  
12920  
12930  
12940  
12950  
12960  
12970  
12980  
12990  
13000  
13010  
13020  
13030  
13040  
13050  
13060  
13070  
13080  
13090  
13100  
13110  
13120  
13130  
13140  
13150  
13160  
13170  
13180  
13190  
13200  
13210  
13220  
13230  
13240  
13250  
13260  
13270  
13280  
13290  
13300  
13310  
13320  
13330  
13340  
13350  
13360  
13370  
13380  
13390  
13400  
13410  
13420  
13430  
13440  
13450  
13460  
13470  
13480  
13490  
13500  
13510  
13520  
13530  
13540  
13550  
13560  
13570  
13580  
13590  
13600  
13610  
13620  
13630  
13640  
13650  
13660  
13670  
13680  
13690  
13700  
13710  
13720  
13730  
13740  
13750  
13760  
13770  
13780  
13790  
13800  
13810  
13820  
13830  
13840  
13850  
13860  
13870  
13880  
13890  
13900  
13910  
13920  
13930  
13940  
13950  
13960  
13970  
13980  
13990  
14000  
14010  
14020  
14030  
14040  
14050  
14060  
14070  
14080  
14090  
14100  
14110  
14120  
14130  
14140  
14150  
14160  
14170  
14180  
14190  
14200  
14210  
14220  
14230  
14240  
14250  
14260  
14270  
14280  
14290  
14300  
14310  
14320  
14330  
14340  
14350  
14360  
14370  
14380  
14390  
14400  
14410  
14420  
14430  
14440  
14450  
14460  
14470  
14480  
14490  
14500  
14510  
14520  
14530  
14540  
14550  
14560  
14570  
14580  
14590  
14600  
14610  
14620  
14630  
14640  
14650  
14660  
14670  
14680  
14690  
14700  
14710  
14720  
14730  
14740  
14750  
14760  
14770  
14780  
14790  
14800  
14810  
14820  
14830  
14840  
14850  
14860  
14870  
14880  
14890  
14900  
14910  
14920  
14930  
14940  
14950  
14960  
14970  
14980  
14990  
15000  
15010  
15020  
15030  
15040  
15050  
15060  
15070  
15080  
15090  
15100  
15110  
15120  
15130  
15140  
15150  
15160  
15170  
15180  
15190  
15200  
15210  
15220  
15230  
15240  
15250  
15260  
15270  
15280  
15290  
15300  
15310  
15320  
15330  
15340  
15350  
15360  
15370  
15380  
15390  
15400  
15410  
15420  
15430  
15440  
15450  
15460  
15470  
15480  
15490  
15500  
15510  
15520  
15530  
15540  
15550  
15560  
15570  
15580  
15590  
15600  
15610  
15620  
15630  
15640  
15650  
15660  
15670  
15680  
15690  
15700  
15710  
15720  
15730  
15740  
15750  
15760  
15770  
15780  
15790  
15800  
15810  
15820  
15830  
15840  
15850  
15860  
15870  
15880  
15890  
15900  
15910  
15920  
15930  
15940  
15950  
15960  
15970  
15980  
15990  
16000  
16010  
16020  
16030  
16040  
16050  
16060  
16070  
16080  
16090  
16100  
16110  
16120  
16130  
16140  
16150  
16160  
16170  
16180  
16190  
16200  
16210  
16220  
16230  
16240  
16250  
16260  
16270  
16280  
16290  
16300  
16310  
16320  
16330  
16340  
16350  
16360  
16370  
16380  
16390  
16400  
16410  
16420  
16430  
16440  
16450  
16460  
16470  
16480  
16490  
16500  
16510  
16520  
16530  
16540  
16550  
16560  
16570  
16580  
16590  
16600  
16610  
16620  
16630  
16640  
16650  
16660  
16670  
16680  
16690  
16700  
16710  
16720  
16730  
16740  
16750  
16760  
16770  
16780  
16790  
16800  
16810  
16820  
16830  
16840  
16850  
16860  
16870  
16880  
16890  
16900  
16910  
16920  
16930  
16940  
16950  
16960  
16970  
16980  
16990  
17000  
17010  
17020  
17030  
17040  
17050  
17060  
17070  
17080  
17090  
17100  
17110  
17120  
17130  
17140  
17150  
17160  
17170  
17180  
17190  
17200  
17210  
17220  
17230  
17240  
17250  
17260  
17270  
17280  
17290  
17300  
17310  
17320  
17330  
17340  
17350  
17360  
17370  
17380  
17390  
17400  
17410  
17420  
17430  
17440  
17450  
17460  
17470  
17480  
17490  
17500  
17510  
17520  
17530  
17540  
17550  
17560  
17570  
17580  
17590  
17600  
17610  
17620  
17630  
17640  
17650  
17660  
17670  
17680  
17690  
17700  
17710  
17720  
17730  
17740  
17750  
17760  
17770  
17780  
17790  
17800  
17810  
17820  
17830  
17840  
17850  
17860  
17870  
17880  
17890  
17900  
17910  
17920  
17930  
17940  
17950  
17960  
17970  
17980  
17990  
18000  
18010  
18020  
18030  
18040  
18050  
18060  
18070  
18080  
18090  
18100  
18110  
18120  
18130  
18140  
18150  
18160  
18170  
18180  
18190  
18200  
18210  
18220  
18230  
18240  
18250  
18260  
18270  
18280  
18290  
18300  
18310  
18320  
18330  
18340  
18350  
18360  
18370  
18380  
18390  
18400  
18410  
18420  
18430  
18440  
18450  
18460  
18470  
18480  
18490  
18500  
18510  
18520  
18530  
18540  
18550  
18560  
18570  
18580  
18590  
18600  
18610  
18620  
18630  
18640  
18650  
18660  
18670  
18680  
18690  
18700  
18710  
18720  
18730  
18740  
18750  
18760  
18770  
18780  
18790  
18800  
18810  
18820  
18830  
18840  
18850  
18860  
18870  
18880  
18890  
18900  
18910  
18920  
18930  
18940  
18950  
18960  
18970  
18980  
18990  
19000  
19010  
19020  
19030  
19040  
19050  
19060  
19070  
19080  
19090  
19100  
19110  
19120  
19130  
19140  
19150  
19160  
19170  
19180  
19190  
19200  
19210  
19220  
19230  
19240  
19250  
19260  
19270  
19280  
19290  
19300  
19310  
19320  
19330  
19340  
19350  
19360  
19370  
19

CONFIDENTIAL

M16 DATA OUTPUT -- VERSION M6  
M16 STATISTICAL SUMMARIES AS OF 28FF068

STANDARD INCLIO, 1000 1. HISTOGRAM OF PREFERENCE OF WEAPON LOCATED IN WORDS 67,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

1300 4  
1276 X  
1263 X  
1222 X  
1196 X  
1170 X  
1144 X  
1116 X  
1092 X  
1066 X  
1040 X  
1014 X  
988 X  
962 X  
936 X  
910 X  
884 X  
858 X  
832 X  
806 X  
780 X  
754 X  
728 X  
702 X  
676 X  
650 X  
624 X  
598 X  
572 X  
546 X  
520 X  
494 X  
468 X  
442 X  
416 X  
390 X  
364 X  
338 X  
312 X  
286 X  
260 X  
234 X  
208 X  
182 X  
156 X  
130 X  
104 X  
78 X  
52 X  
26 X  
0

WEAPON PREFERENCE			
INTERVAL	WEAPON	NUMBER	PERCENTAGE
1	No Response	203	-
2	M16	1252	69%
3	M14	258	14%
4	XM177E1	291	16%
5	Other	16	< 1%
TOTALS		2020	100% (1817)

WEAPON PREFERENCE		
WEAPON	NUMBER	PERCENTAGE
M16 & XM177E1	1543	85%
M14	258	14%
Other	16	< 1%
TOTALS	1817	100%

Question 29: What weapon do you prefer?

INTERVAL 13550 1096  
10

CONFIDENTIAL

# CONFIDENTIAL

SHIVA OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARIES AS OF 20 FEB 68

STANDARD BLUCTION, M16 1 HISTOGRAM OF LIKES 1 LOCATED IN WORDS 68.  
ALL ASSOCIATED REIGHTING FACTORS LOCATED IN WORDS 0.

INTERVAL	RESPONSE	WHAT DO YOU LIKE ABOUT THE M16? 1/ 2/					TOTAL NUMBER	PERCENTAGE
		1	2	3	4	5		
1	No Response	497	1095	1748	1982	2007	497	-
2	Light Weight	1340	12	5	0	0	1357	49%
3	Heavy Firepower	110	497	17	1	0	625	23%
4	Ease of Cleaning/Maintenance	19	115	82	6	0	222	8%
5	Ease of Handling	29	217	85	20	1	352	13%
6	Lethality	8	14	15	5	11	53	2%
7	Accuracy	9	52	49	4	2	116	4%
8	Reliability	8	18	20	3	0	49	2%
TOTALS							3271	100% (2774)

1/ "Likes" were recorded from each questionnaire in a 5 column field to assure the recording of all responses (an individual frequently listed several "likes"). A histogram was printed for each column and then responses totaled in this table.

2/ "Haverick" or unusual "Likes" were recorded separately.

Question 30: What do you "like" about the M16? (Column 1)

CONFIDENTIAL



# CONFIDENTIAL

SUMX OUTPUT -- VERSION M4  
M16 STATISTICAL SUMMARIES AS OF 20FEB68

STANDARD NO. 10, N16 1 HISTOGRAM OF DISLIKES 1 LOCATED IN WORDS 73,  
WITH ASSOCIATED WEIGHTING FACTORS LOCATED IN WORDS 0,

NUMBER

1100

1070

1050

1014

1012

970

960

920

900

850

830

810

770

740

720

700

680

660

640

620

600

580

560

540

520

500

480

460

440

420

400

380

360

340

320

300

280

260

240

220

200

180

160

140

120

100

80

60

40

20

0

INTERVAL

10

WHAT DO YOU DISLIKE ABOUT THE M16? 1/ 2/

INTERVAL	RESPONSE	NUMBER BY COLUMN					TOTAL NUMBER	PERCENTAGE
		1	2	3	4	5		
1	No Response	1064	1924	2009	2017	2018	1064	-
2	Sensitive to Dirt or Abuse	175	11	0	1	0	187	24%
3	1 Dislike Nothing	303	2	0	0	0	305	-
4	Difficult to Clean	170	16	3	0	0	189	25%
5	Inadequate Range	8	1	3	1	0	13	2%
6	Poor Lethality	9	2	0	1	1	13	2%
7	Inaccurate	29	5	1	0	2	37	5%
8	Poor Reliability	242	52	5	1	0	300	39%
9	Poor Penetration	1	2	0	0	0	3	< 1%
10	Magazine	20	6	0	0	0	26	3%
TOTALS							2137	100% (768)

1/ "Dislikes" were recorded from each questionnaire in a 5 column field to assure the recording of all responses (an individual frequently listed several "dislikes"). A histogram was printed for each column and then responses totaled in this table.

2/ "Haverick" or unusual "Dislikes" were recorded separately.

Question 31: What do you "dislike" about the M16? (Column 1)



# CONFIDENTIAL

## XI. Matrix Plots

A series of matrix plots which permitted correlation of responses to two or more questionnaire items were prepared to support the analysis. Tables 1 through 16 (Section VIII) were developed from these plots. A listing of each matrix print-out prepared follows by subject area.

### Reliability

1. Lubrication of ammunition vs failures to extract
2. Percent tracer vs failures to lock
- 3.a. Hours mechanical training (before Vietnam) vs failures to lock and extract
- b. Hours mechanical training (in Vietnam) vs failures to lock and extract
- c. Total hours mechanical training vs failures to lock and extract
4. Time since last trained on M16 vs failures to lock and extract
5. M16 cleaning trends vs failures to lock and extract
6. Magazine and ammunition cleaning trends vs failures to lock and extract
7. Number of rounds expended within 4 months vs failures to extract

### Supervision

1. M16 cleaning trends vs unit inspections of M16
2. Magazines and ammunition cleaning trends vs unit inspections of magazines and ammunition

# CONFIDENTIAL

## Training

1. Training received before arrival in Vietnam vs MOS
2. Training received before arrival in Vietnam vs months

in Vietnam

3. Of those not receiving training before arrival in Vietnam  
("No" answer on question 3A)

- a. Theater source vs duty position
- b. Theater source vs MOS
- c. Theater source vs grade

4. Of those receiving training before arrival in Vietnam  
("Yes" answer on question 3A)

- a. Duty position vs hours mechanical training before  
Vietnam

- b. MOS vs hours mechanical training before Vietnam
- c. Duty position vs hours range firing before Vietnam
- d. MOS vs hours range firing before Vietnam
- e. Duty position vs hours tactical training before

Vietnam

- f. MOS vs hours tactical training before Vietnam

5. Of those receiving training in Vietnam

- a. Duty position vs hours mechanical training in  
Vietnam

# CONFIDENTIAL

~~CONFIDENTIAL~~

UNCLASSIFIED

- b. MOS vs hours mechanical training in Vietnam
  - c. Duty position vs hours range firing in Vietnam
  - d. MOS vs hours range firing in Vietnam
  - e. Duty position vs hours tactical training in Vietnam
  - f. MOS vs hours tactical training in Vietnam
6. Of those not receiving training either before arrival in Vietnam or in Vietnam

Major unit vs Duty Position

Cleaning Materials

Of those having cleaning materials ("Yes" answer on question 5a to g)

- 1. to 7. Men who carry materials (a-g) vs MOS

Zeroing

- 1. Zeroing history vs MOS
- 2. Zeroing history vs duty position
- 3. Zeroing history vs time in Vietnam
- 4. Zeroing history vs type of unit (maneuver battalion and other)

Ammunition Load

- 1. MOS vs ball ammunition load
- 2. MOS vs tracer ammunition load
- 3. MOS vs number of magazines carried
- 4. Type of unit (maneuver battalions and other) vs total ammunition load

UNCLASSIFIED

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

UNCLASSIFIED

General Usage

1. MOS vs percent of fire expended in fully automatic mode
2. MOS vs percent of automatic fire expended in short bursts
3. MOS vs largest number of rounds fired within 1 day of combat
4. MOS vs percent tracer used
5. Duty position vs percent tracer used
6. Weapon preference vs MOS
7. Test firing vs duty position
8. Test firing vs type of unit (maneuver battalion and other)

Major unit

1. Major unit vs presence of new buffer
2. Major unit vs zeroing history
3. Major unit vs lubrication of ammunition
4. Major unit vs test firing
5. Major unit vs M16 cleaning trends
6. Major unit vs unit inspections of M16
7. Major unit vs magazine and ammunition cleaning trends
8. Major unit vs unit inspection of magazines and ammunition
9. Major unit vs percent tracer
10. Major unit vs failures to lock and extract
11. Major unit vs training received in Vietnam

UNCLASSIFIED

~~CONFIDENTIAL~~